



Environment and Natural Resources Trust Fund (ENRTF) M.L. 2013 Work Plan

Date of Status Update Report: October 2, 2012

Date of Next Status Update Report: January 2014

Date of Work Plan Approval: June 11, 2013

Project Completion Date: June 30, 2016

Is this an amendment request? NO

PROJECT TITLE: Enhancing Timber Sale Program Environmental and Economic Sustainability

Project Manager: Charles Blinn

Affiliation: Department of Forest Resources
College of Food, Agricultural and Natural Resource Sciences
University of Minnesota

Mailing Address: 1530 Cleveland Avenue North

City/State/Zip Code: St. Paul, MN 55108

Telephone Number: (612) 624-3788

Email Address: cblinn@umn.edu

Web Address: None

Location: Aitkin, Becker, Beltrami, Carlton, Cass, Clearwater, Cook, Crow Wing, Hubbard, Itasca, Koochiching, Lake, Lake of the Woods, Pine, and St. Louis counties

Total ENRTF Project Budget:

ENRTF Appropriation: \$336,000

Amount Spent: \$0

Balance: \$336,000

Legal Citation: M.L. 2013, Chp. 52, Sec. 2, Subd. 03i

Appropriation Language:

\$336,000 the first year is from the trust fund to the Board of Regents of the University of Minnesota to evaluate the impacts of timber payment methods on postharvest forest ecological conditions and net revenue generated from public timber sale programs. This appropriation is available until June 30, 2016, by which time the project must be completed and final products delivered.

I. PROJECT TITLE: Enhancing Timber Sale Program Environmental and Economic Sustainability

II. PROJECT STATEMENT:

Minnesota’s 9.5 million acres of public forest land play an important role in sustaining our state’s environment and economy. The policies and programs used by public timber sale programs can impact post-harvest ecological conditions such as the types and amount of living and dead trees retained. These conditions can, in turn, have pronounced effects on the composition, structure, and productivity of the future forest (e.g., merchantable timber volume and products, wildlife habitat, species diversity). Timber harvesting on these lands also helps support the state’s forest products industry, which is an extremely important source of direct and indirect economic activity, employment, and tax revenue. The revenue generated from public timber sales also benefits state and local governments as well as K-12 education.

The method used by a public timber sale program to collect payment for the timber sold can have a substantial impact on post-harvest ecological conditions and net timber sale revenue. Public land management agencies collect payment for timber sold at auction in one of two ways, pay-as-cut (consumer scale) or sold-on-appraised-volume. Under the consumer scale approach, the buyer (typically a logging firm) pays for the scaled timber based on the amount harvested and scaled at a mill or on a landing by a qualified scaler. For the sold-on-appraised-volume approach, the buyer pays a fixed amount for the timber sale based upon the appraised volumes of standing timber, regardless of the volume actually harvested. Payment method can affect the level of utilization from a given forest site, producing important differences in post-harvest ecological conditions. It can also impact gross timber sale receipts and agency timber sale administrative costs. In Minnesota, the Cass County Land Department and the USDA-Forest Service are the only public forestry agencies that almost exclusively use the sold-on-appraised-volume approach; the St. Louis County Land Department and MN DNR offer timber sales using each method.

The goals of our study are to evaluate: (1) how the two timber payment methods impact post-harvest forest ecological conditions; (2) the cost-effectiveness of Minnesota’s public timber sale programs; and 3) how natural resource managers and loggers perceive each of these payment methods (strengths, weaknesses, opportunities, barriers). We will achieve our goals by reviewing the literature, collecting field data (both economic and ecological), and conducting focus groups with resource managers and loggers. The study will provide Minnesota’s public forest management agencies and policymakers with information that can help them identify economic and ecological tradeoffs associated with each payment method.

III. PROJECT STATUS UPDATES:

Project Status as of *(January 2014):*

Project Status as of *(July 2014):*

Project Status as of *(January 2015):*

Project Status as of *(July 2015):*

Project Status as of *(January 2016):*

IV. PROJECT ACTIVITIES AND OUTCOMES:

ACTIVITY 1: Assess ecological impacts of the two payment approaches

Description:

We will establish study plots on at least 50 recently closed timber sales on state and county lands in Cass and St. Louis counties to assess the impact of timber payment method on post-harvest silvicultural and ecological

conditions. We will measure the distribution and abundance of living and dead trees and the amount of coarse wood retained on the forest floor, allowing us to address questions related to how each payment method affects important habitats. The abundance and species of forest seedlings will also be measured to examine how each payment method affects future forest composition. Results concerning the impacts of timber sale payment method on forest habitat and composition will be summarized in project reports.

Summary Budget Information for Activity 1:

ENRTF Budget: \$ 110,000
Amount Spent: \$ 0
Balance: \$ 110,000

Activity Completion Date: *July 2015*

Outcome	Completion Date	Budget
1. Post-harvest field sites identified through work with counties and MNDNR	March 2014	\$33,000
2. Post-harvest sampling data collection completed	September 2014	\$42,100
3. Analysis of post-harvest data completed	March 2015	\$17,400
4. Final report of activity results submitted	July 2015	\$17,500

Activity Status as of *(January 2014):*

Activity Status as of *(July 2014):*

Activity Status as of *(January 2015):*

Activity Status as of *(July 2015):*

Final Report Summary *(August 2016):*

ACTIVITY 2: Assess the cost-effectiveness of the two payment approaches

Description:

Literature will be reviewed to identify any relatively new published articles which relate to the cost-effectiveness of the two payment methods. A national assessment of state and county timber sale program administrators will be conducted to understand their use of these two timber payment methods, perceptions of the ecological, financial, administrative advantages and disadvantages of each, including how each one affects forest certification and chain-of-custody efforts. Selected St. Louis County Land Department timber sales will be set up and offered for sale under both payment options using a paired bidding methodology to determine how payment method affects gross timber sale revenue. We estimate that 50-75 tracts of timber sold using the paired bidding methodology will generate 200-300 usable paired bids from which we will assess the impact timber payment method has on willingness to pay for stumpage. Time card information from St. Louis County Land Department field and office personnel responsible for setting up and administering timber sales will be collected and assessed to identify the administrative costs associated with each payment method. Records of merchantable timber volume harvested will be examined to estimate differences in gross revenue generated from sold-on-appraised-volume and consumer scale timber payment methods.

Summary Budget Information for Activity 2:

ENRTF Budget: \$ 126,000
Amount Spent: \$ 0
Balance: \$ 126,000

Activity Completion Date: *January 2016*

Outcome	Completion Date	Budget
1. Updating of literature review completed	December 2013	\$18,000
2. Survey of state and county land department timber sale	September 2014	\$24,000

<i>administrators completed</i>		
<i>3. Timber sales set-up and auctioned using paired bidding methodology and paired bid data analyzed; estimates made of gross timber sale revenue associated with each payment method</i>	June 2015	\$42,000
<i>4. Timber sale administration time data collected and analyzed</i>	September 2015	\$24,000
<i>5. Final report of activity and project results submitted</i>	January 2016	\$18,000

Activity Status as of (January 2014):

Activity Status as of (July 2014):

Activity Status as of (January 2015):

Activity Status as of (July 2015):

Activity Status as of (January 2016):

Final Report Summary (August 2016):

ACTIVITY 3: Assess implementation barriers for the two payment approaches

Description:

Literature will be reviewed to examine opportunities and constraints associated with timber sale programs. Cass and St. Louis County Land Department staff will be interviewed to document the processes used to transition from consumer scaling to sold-on-appraised-volume timber sale payment process and the issues they encounter in doing so. Up to 30 in-depth interviews and 5 focus groups with MN loggers and natural resource managers will be conducted to assess ecological and economic opportunities and concerns associated with each timber payment method. Recommendations will be provided for addressing constraints and barriers identified.

Summary Budget Information for Activity 3:

ENRTF Budget: \$ 100,000

Amount Spent: \$ 0

Balance: \$ 100,000

Activity Completion Date: June 2015

Outcome	Completion Date	Budget
<i>1. Interview and focus groups methods developed based on literature reviewed</i>	March 2014	\$16,000
<i>2. Conduct and analyze interviews with Cass and St. Louis County Land Department staff, natural resource professionals, logging business owners, and industry procurement foresters in the study counties</i>	June 2014	\$45,000
<i>3. Focus groups conducted</i>	April 2015	\$27,000
<i>4. Final report of activity results submitted</i>	January 2016	\$12,000

Activity Status as of (January 2014):

Activity Status as of (July 2014):

Activity Status as of (January 2015):

Activity Status as of (July 2015):

Activity Status as of (January 2016):

Final Report Summary (August 2016):

V. DISSEMINATION:

Description:

Project cooperators will receive a summary of Activity Status reports and regular updates semiannually. In addition, results will be communicated with cooperators on an ongoing basis as appropriate. After the project ends, presentations will be made to appropriate groups in Minnesota (e.g., Minnesota Forest Resources Council, Minnesota Logger Education Program, MN DNR, county land departments, USDA-Forest Service) and manuscripts will be submitted to peer-review outlets for publication.

Status as of (January 2014):

Status as of (July 2014):

Status as of (January 2015):

Status as of (July 2015):

Status as of (January 2016):

Final Report Summary (August 2016):

VI. PROJECT BUDGET SUMMARY:

A. ENRTF Budget:

Budget Category	\$ Amount	Explanation
Personnel:	\$321,584	<p>Faculty salary: One month of summer salary and fringe (0.36) for two years (University of Minnesota Co-PI faculty on 9-month appointments - D'Amato, Davenport, and Kilgore; 0.1 FTE each) (Total: \$74,980)</p> <p>Graduate students: Salary and fringe (0.8636) for University of two Minnesota graduate students at 2 years and one graduate student at 2.5 years, each at 50% time (20 hours/week). Graduate fringe is budgeted at 0.8636 of salary load and includes tuition for the academic year, health care for the fiscal year, and social security and Medicare for summer pay periods. (Total: \$239,890)</p> <p>Undergraduate student: Salary and fringe (0.0743) for a University of Minnesota work-study undergraduate student for 1 year (Total: \$6,714)</p>
Travel Expenses in MN:	\$ 14,416	Travel within Minnesota to pay mileage (75%) and per diem costs (25%) for researchers, graduate students and undergraduate students to collect

		project data and meet with study collaborators.
TOTAL ENRTF BUDGET:	\$336,000	

Explanation of Use of Classified Staff:

N/A

Explanation of Capital Expenditures Greater Than \$3,500:

N/A

Number of Full-time Equivalent (FTE) funded with this ENRTF appropriation:

3.75 FTE

Number of Full-time Equivalent (FTE) estimated to be funded through contracts with this ENRTF appropriation:

N/A

B. Other Funds:

Source of Funds	\$ Amount Proposed	\$ Amount Spent	Use of Other Funds
Non-state			
St. Louis County Land Department	\$6,500	\$0	Staff time to identify recently-closed timber sales to be evaluated during the field assessment (Activity 1); to set up and administer pair bid timber sales, to redesign and collect pertinent time card information, and to participate in assessment of timber sale administrators (Activity 2); and to participate in focus groups (Activity 3).
Cass County Land Department	\$1,750	\$0	Staff time to identify recently-closed timber sales to be evaluated during the field assessment (Activity 1), to participate in assessment of timber sale administrators (Activity 2) and to participate in focus groups (Activity 3)
Minnesota Logger Education Program	\$500	\$0	Staff time to identify loggers for focus groups and provide incentives for them to attend (Activity 3)
State			
Minnesota DNR	\$1,000	\$0	Staff time to identify recently-closed timber sales to be evaluated during the field assessment (Activity 1) and to participate in focus groups (Activity 3)
University of Minnesota	\$50,000	\$0	Project faculty in support of working with project PIs and other project employees to provide input on study protocol and interpretation of study results .
TOTAL OTHER FUNDS:	\$59,750	\$0	

VII. PROJECT STRATEGY:

A. Project Partners:

The University of Minnesota will receive all of the funding and contribute time and effort to the project. Faculty members involved are: Activity 1--Tony D'Amato (Associate Professor); Activity 2--Charlie Blinn (Professor and project leader), Alan Ek (Professor) and Mike Kilgore (Professor); and Activity 3--Mae Davenport (Associate Professor). The University will partner at no cost to the project with the St. Louis County (SLC) Land Department, Cass County Land Department, the Minnesota Logger Education Program (MLEP) and the MNDNR-Forestry. SLC will assist researchers with setting up and offering tracts for sale under both timber payment options, providing access to staff time card effort information, information about their recently completed timber sales and staff to participate in the focus groups. Cass County Land Department will provide information about their recently completed timber sales as well as staff to participate in the focus groups. MLEP will assist with identifying loggers for focus groups. MNDNR-Forestry will provide information about their recently completed timber sales as well as staff to participate in the focus groups.

B. Project Impact and Long-term Strategy:

The method used by a public timber sale program to collect payment for the timber sold can have a substantial impact on post-harvest ecological conditions and net timber sale revenue. University of Minnesota faculty previously assessed how state timber sale policies and procedures, and forest management guidelines impact the price paid for timber. It is anticipated that the project will be completed within a 2.5-year period beginning July 2013. Project study results will be presented to cooperators, others and submitted to peer review outlets after project completion.

C. Spending History:

Funding Source	M.L. 2007 or FY08	M.L. 2008 or FY09	M.L. 2009 or FY10	M.L. 2010 or FY11	M.L. 2011 or FY12-13
Minnesota Forest Resources Council		\$197,400			

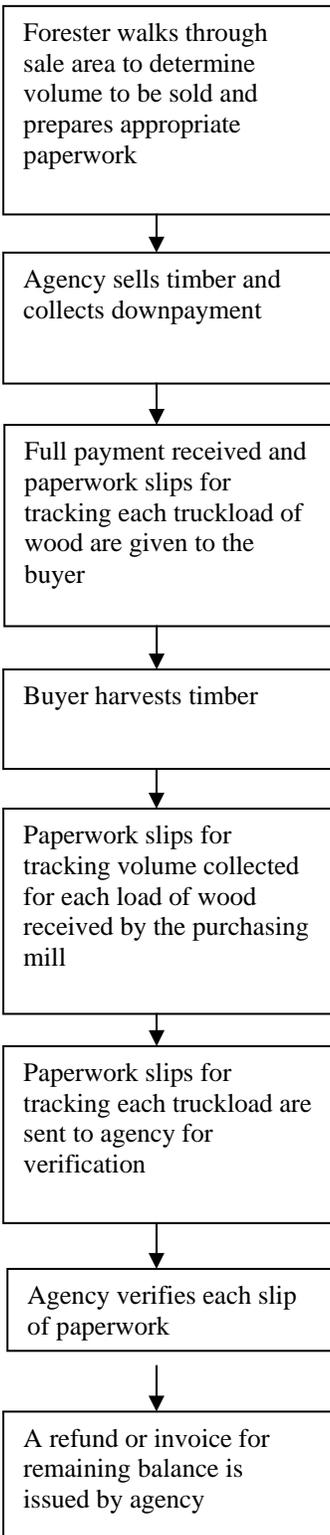
VIII. ACQUISITION/RESTORATION LIST:

N/A

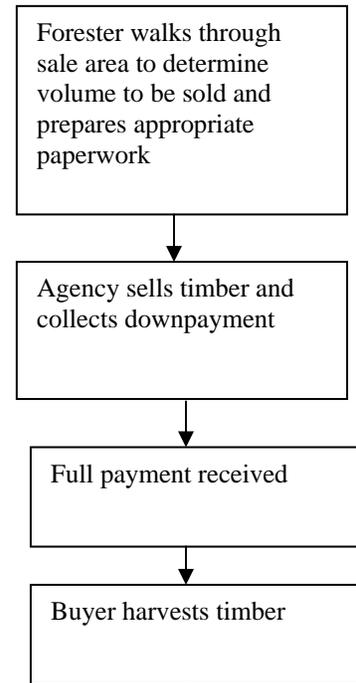
IX. MAP(S):

Comparison of activities and differences between the consumer scale (pay for what you harvest) and sold-on-appraised volume (pay for the estimated volume) payment methods.

Consumer scale
(Pay for what you harvest)



Sold-on-appraised volume
(Pay for estimated volume)



Payment method could lead to differences in:

- ecological outcomes
- timber utilization
- timber sale revenue
- administrative costs

X. RESEARCH ADDENDUM:

N/A

XI. REPORTING REQUIREMENTS:

Periodic work plan status update reports will be submitted not later than January 2014, July 2014, January 2015, July 2015, and January 2016. A final report and associated products will be submitted between June 30 and August 15, 2016.

Attachment A: Budget Detail for M.L. 2013 Environment and Natural Resources Trust Fund Projects

Project Title: : <i>Enhancing Timber Sale Program Environmental and Economic Sustainability</i>											
Legal Citation: M.L. 2013, Chp. 52, Sec. 2, Subd. 03i											
Project Manager: <i>Charles Blinn</i>											
M.L. 2013 ENRTF Appropriation: \$ 336,000											
Project Length and Completion Date: Three years, June 2016											
Date of Update: <i>January 2014</i>											
ENVIRONMENT AND NATURAL RESOURCES TRUST FUND BUDGET	Activity 1 Budget	Amount Spent	Balance	Activity 2 Budget	Amount Spent	Balance	Activity 3 Budget	Amount Spent	Balance	TOTAL BUDGET	TOTAL BALANCE
BUDGET ITEM	<i>Assess ecological impacts of the two</i>			<i>Assess the cost-effectiveness of the two</i>			<i>Assess implementation barriers for the two</i>				
Personnel (Wages and Benefits)											
A) One month of summer salary and fringe (0.36) for two years (University of Minnesota Co-PI faculty on 9-month appointments - D'Amato (Activity 1), Kilgore (Activity 2), and Davenport (Activity 3); 0.1 FTE each) (Total: \$74,980). B) Salary and fringe (0.8636) for two University of Minnesota graduate students at 2 years and one graduate student at 2.5 years, each at 50% time (20 hours/week). Graduate fringe is budgeted at 0.8636 of salary load and includes tuition for the academic year, health care for the fiscal year, and social security and Medicare for summer pay periods (Total: \$239,890). C) Salary and fringe (0.0743) for a University of Minnesota work-study undergraduate student for 1 year (Total: \$6,714).	\$100,000		\$100,000	\$124,000		\$124,000	\$97,584		\$97,584	\$321,584	\$321,584
Travel Expenses in Minnesota											
Mileage (75%) and per diem costs (25%) for researchers, graduate students and undergraduate students to collect project data and meet with study collaborators.	\$10,000		\$10,000	\$2,000		\$2,000	\$2,416		\$2,416	\$14,416	\$14,416
COLUMN TOTAL	\$110,000	\$0	\$110,000	\$126,000	\$0	\$126,000	\$100,000	\$0	\$100,000	\$336,000	\$336,000