

# Minnesota Department of Natural Resources

500 Lafayette Road • St. Paul, MN • 55155-40



September 28, 2009

The Honorable Ellen Anderson  
Env., Energy and N.R. Budget Division chair  
75 Rev. Dr. Martin Luther King Jr. Blvd.  
Capitol Building, Room 120  
St. Paul, Minnesota 55155-1606

The Honorable Jean Wagenius  
Environment and N.R. Finance chair  
449 State Office Building  
100 Rev. Dr. Martin Luther King Jr. Blvd.  
St. Paul, Minnesota 55155

Dear Senator Anderson and Representative Wagenius;

According to Minnesota Session Laws Chapter 368, Article 1, section 19, the Commissioner of the Department of Natural Resources (DNR) must provide quarterly forest management investment account (FMIA) fund statements, including a report on the methodology used in calculating the revenue forecasts.

Attached for your review are three documents:

1. A summary report outlining revenue forecast trends and methods, and
2. Timber Sales Revenue Forecast, and
3. The Forest Management Investment Account planning statement-FY09 Close

Additional detail is available upon request.

Sincerely,

Laurie Martinson, Deputy Commissioner  
Department of Natural Resources

Enclosures

Cc: Bob Meier  
Denise Anderson  
Dave Epperly  
Mike Salzwedel



# Minnesota Department of Natural Resources

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DATE: 09/28/09

## LEGISLATIVE REPORT – Cost of Preparation

NAME OF LEGISLATIVE REPORT – Forest Management Investment Account Forecast Update

Based on: Laws of 2008, Chapter 368, Article 1, Section 19

Prepared by: Donald Deckard, Department of Natural Resources

Phone: 651-259-5287

E-Mail: Donald.Deckard@dnr.state.mn.us

Description of Cost	Further explanation if necessary	Amount
Staff Time	2 week staff time (multiple staff)	\$2,500
Duplication Cost (includes paper)	Negligible, most work done electronically	
Other:		
<b>TOTAL TO PREPARE REPORT</b>		
<i>(Note: Right click on amount cell and choose update to complete)</i>		\$2,500



# Minnesota Department of Natural Resources

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## September 2009 Timber Revenue Forecast - Executive Summary FY09 Close and FY10-12 Forecast

### Highlights

#### *Fiscal Year 2009-10 Management Actions and Results*

- Implemented quarterly invoicing policy that resulted in a \$913,000 one-time increase in accounts receivable due to billing timing.
- Adjusted prices to market conditions, improving both sales and harvest volumes over no action.
- Implemented many other operational changes that improved revenue, but are difficult to quantify.
- Initiated a planned agency unallotment of \$1,050,000 in FY10 FMIA expenditures.

*Fiscal Year 2009 Timber Revenue Final* - As of September 14, closeout FY09 timber revenues were \$19.56 million, as compared to the Apr09 MED forecast of \$19.55 million. In FY09, 908,182 cords sold at an average \$19.30 per cord and 4.46 million board feet of sawtimber sold at an average \$152.22 per thousand board feet. The year closed with an 80 percent sell rate. In comparison, 1,112,650 cords sold at \$20.70 per cord and 8.8 million board feet sold at \$200.08 per thousand board feet in FY08. The FY08 sell rate was 94 percent of volume offered. In FY09, 717,170 cords were harvested at an average \$22.87 per cord and 4.63 million board feet of sawtimber was harvested at an average price of \$207.76 per thousand board feet. In FY08, 813,395 cords were harvested at \$25.61 per cord and 4.6 million board feet was harvested at an average \$239.69 per thousand board feet.

*Fiscal Years 2010-2012 Forecast* - For this update, FY10-11 forecast MED revenues were increased by 0.2 percent and FY12 forecast MED revenue was increased by 0.9 percent as compared to the Jun09 forecast MED. As of September 14, FY10Q1 sales totaled 81,916 cords at an average \$23.48 per cord as compared to FY09Q1 sales of 111,332 cords at an average \$21.61 per cord. Preliminary FY10Q1 removals were 77,159 cords at an average \$23.04 per cord as compared to the FY09Q1 removals of 158,325 cords at an average \$26.16 per cord. Of note, FY10Q1 removals volume is likely to be close to 100,000 cords. For all timber products combined, inventory (uncut volume under contract) was approximately 2.35 million cords with a book value of \$54 million.

As a result of the FY09 closeout reconciliation between actual and forecast revenues, a determination was made to add line item sale and scale method adjustments in order to explicitly account for revenue effects. As compared to the Jun09 forecast, the modest increase in revenue is attributable to accounting for the effects of sale and scale method, particularly the revenue from volume growth that is captured with the pay-as-cut scaled sale combination, offset by increased risk of unrealized revenue because of the mandate to sell more wood by the pay-as-cut sold on appraised volume combination.

#### September 2009 Forecast Timber Sales Revenue, FY2010-FY2012.

Forecast	FY10	FY11	FY12
Sept09 MED	\$16,195,000	\$16,714,000	\$17,086,000
Jun09 MED	\$16,167,000	\$16,685,000	\$16,934,000
Change MED (\$)	\$28,000	\$29,000	\$152,000
Change MED (%)	0.2%	0.2%	0.9%

#### Key Changes Since the June 2009 Forecast Update

- The FY10 timber sales target was decreased from 950,000 new cords to 825,000 new cords.
- The timber revenue forecast line item "Lump Sum Sales Adjustment" was added to fully capture the revenue from timber sales that are paid in full at the time of sale (lump sum payment).
- The timber revenue forecast line item "Scaled Sales Growth Adjustment" was added to fully capture down payment revenue from volume growth above the initial sale down payment volume.
- Mandated increases in pay-as-cut (consumer scaled) sold on appraised volume (SOAV) sales will increase the risk of unrealized revenue over the duration of the permits.



## Trends

**Sales Volume and Pricing** - Sales volume continues to be impeded by poor market conditions and reduced market size as indicated by the FY09 sell rate at 80 percent of volume offered. The Northeast Region was hit hardest by shrinking market demand with 77 percent of unsold DNR volume as of June 30. With the FY10 offer target reduced to 825,000 cords, a 13 percent reduction from last year's 950,000 cord target, the expectation is lower sales volume as compared to last year. The MED forecast is 800,000 cords sold as compared to 917,000 cords sold in FY09.

**Removals Volume and Pricing** - FY 2009 closed with 717,170 cords plus 4.6 million board feet of sawtimber harvested from DNR administered lands. While uncertainty prevails, there is an expectation that the FY 2010 harvest volume will be at least equal to the FY09 harvest volume. The MED forecast is based on a 750,000 cord harvest including 741,000 cords and 4.5 million board feet (9,000 cord equivalent) sawtimber. However, purchasers control the volume and timing of harvest and could delay harvest beyond current permit expiration dates, particularly if economic recovery and wood market conditions are slower than anticipated.

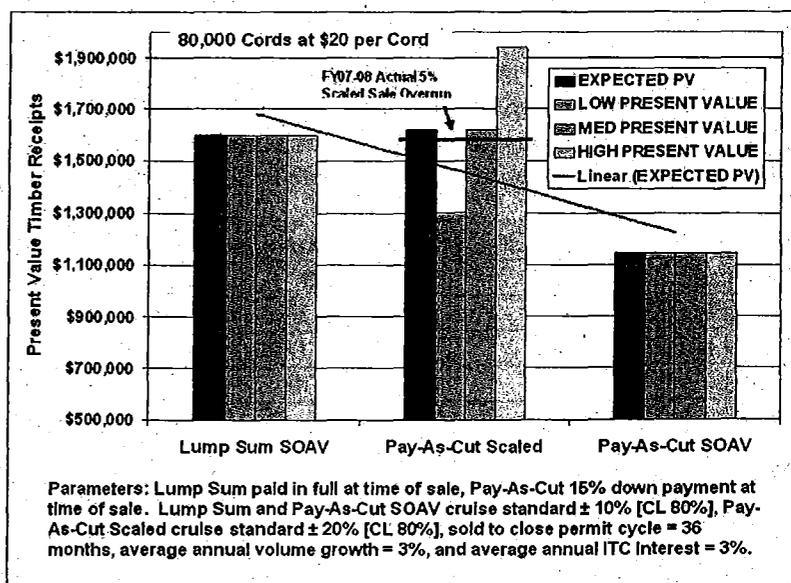
**Accounts Receivable (AR)** - FY09 closed with a balance of \$1.28 million as compared to the FY08 closing balance of \$2.19 million, due to a change in billing cycle. However, 29.1 percent (\$371,600) of the FY09 closing balance was >120 days past due. In comparison, only 2.5 percent (\$54,000) of the FY08 closing balance was >120 days past due.

### Pay-As-Cut SOAV Increasing Risk of Unrealized Revenue

Timber is sold in two basic ways, lump sum or pay-as-cut, the key difference being timing of payment. Lump sum sales are paid in full at the time of sale while pay-as-cut sales generally require a down payment with the balance due as timber is harvested. Lump sum sales volume is always based on appraised volume. While the majority of pay-as-cut sales are scaled for payment, DNR historically sold 8-10 percent by pay-as-cut sold on appraised volume (SOAV).

Sale Method	Scale Method	FY09 %	FY10 %
Pay-As-Cut	Scaled	91	81
Pay-As-Cut	SOAV	8	18
Lump Sum	SOAV	1	1
Total (%)		100	100

As per legislative mandate, the Division has been directed to increase the volume of pay-as-cut sales sold on appraised volume (SOAV). Permits will likely be standard 3-year term. Using the Sept09 FY10 800,000 cord sales forecast and the forecast average sale price of \$20 per cord, an increase of pay-as-cut SOAV from the current 8 percent to 18 percent will shift 80,000 cords from pay-as-cut scaled to pay-as-cut SOAV, reducing the expected timber revenue by \$478,500 as compared to selling the same volume pay-as-cut scaled, the difference being unrealized sale volume overrun (growth). Of course, this is to be considered a crude estimate.



## Funds Allocation

Acquired Forestry and Con-Con dollars are allocated on a revenue basis while School/University Trust dollars are allocated on a cost basis. The current land class distribution of timber inventory by book value is similar to historical averages. However, annual removals may deviate from historical averages by as much as  $\pm$ 5% by fund. FY10 fund allocations estimated using the Sept09 FY10 MED revenue forecast were UNCHANGED from the Jun09 forecast values.

Contact: Don Deckard, State Forest Economist, <mailto:donald.deckard@state.mn.us>, (651) 259-5287



September 2009

**Timber Sales Revenue Forecast**

**FY09 Close and FY10-12 Forecast**

**For lands administered by the Department of Natural Resources**

*Fiscal Year 2010 - First Quarter*

*Baseline Date: September 14, 2009*

Prepared by  
Don Deckard, Ph.D.  
State Forest Economist  
DNR – Division of Forestry

## EXECUTIVE SUMMARY

### Background

The quarterly timber sales forecast projects revenues from the sale of forest products from lands managed by the Minnesota Department of Natural Resources. Forecast updates are completed to provide the most current revenue estimates based on changing market conditions and newly available information. The revenue forecast provides critical budget planning information for the Division of Forestry. Timber revenues are distributed to management funds and beneficiaries as directed by statute. Fiscal years for Minnesota State government begin on July 1 and end on June 30. For this forecast cycle, the point in time that designates the transition from actual values to forecast values (baseline date) is September 14, 2009. All values are expressed in nominal dollars without adjustments for inflation or deflation.

The Division of Forestry manages 4.2 million acres of State owned forest land, provides forest management and cost share assistance to 140,000 family forest owners holding 5.7 million acres, and protects 45.5 million acres from wildfire. Confronted with declining timber revenue prospects, the Division implemented a fiscal strategy in early FY08 that successfully managed down \$5.4 million in FMIA expenditures through FY09. Cost cutting was accomplished by holding positions vacant and reduced efforts in: forest improvement, forest roads, ecological classification, forest re-inventory, private land management, and other programs.

### Highlights

#### *Fiscal Year 2009-10 Management Actions and Results*

- Implemented quarterly invoicing policy that resulted in a \$913,000 one-time increase in accounts receivable due to billing timing.
- Adjusted prices to market conditions, improving both sales and harvest volumes over no action.
- Implemented many other operational changes that improved revenue, but are difficult to quantify.
- Initiated a planned agency unallotment of \$1,050,000 in FY10 FMIA expenditures.

*Fiscal Year 2009 Close* - As of September 14, FY09 timber revenues were \$19.56 million, as compared to the Apr09 MED forecast of \$19.55 million, a difference of 0.1 percent. In FY09, 908,182 cords sold at an average \$19.30 per cord and 4.46 million board feet (MMBF) of sawtimber sold at an average \$152.22 per thousand board feet (MBF). The year closed with an 80 percent sell rate on volume offered. In comparison, 1,112,650 cords sold at \$20.70 per cord and 8.8 MMBF sold at \$200.08 per MBF in FY08. The FY08 sell rate was 94 percent of volume offered. In FY09, 717,170 cords were harvested at an average \$22.87 per cord and 4.63 MMBF of sawtimber was harvested at an average price of \$207.76 per MBF. In FY08, 813,395 cords were harvested at \$25.61 per cord and 4.6 million board feet was harvested at an average \$239.69 per thousand board feet. At year-end, timber inventory (volume under contract) was approximately 2.35 million cords with a book value of \$54 million.

*Fiscal Years 2010-2012 Forecast* - For this update, FY10-11 forecast MED revenues were increased by 0.2 percent and the FY12 forecast MED revenue was increased by 0.9 percent as compared to the Jun09 forecast. As of September 14, FY10Q1 sales totaled 81,916 cords at an average \$23.48 per cord as compared to FY09Q1 sales of 111,332 cords at an average \$21.61 per cord. Preliminary FY10Q1 removals were 77,159 cords at an average \$23.04 per cord as compared to the FY09Q1 removals of 158,325 cords at an average \$26.16 per cord.

#### September 2009 Forecast Timber Sales Revenue, FY2010-FY2012.

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As a result of the FY09 closeout reconciliation between actual and forecast revenues, a determination was made to add line item sale and scale method adjustments in order to explicitly account for revenue effects. As compared to the Jun09 forecast, the modest increase in revenue is attributable to accounting for the effects of sale and scale method, particularly the revenue from volume growth that is captured with the pay-as-cut scaled sale combination, offset by increased risk of unrealized revenue because of the mandate to sell more wood by the pay-as-cut sold on appraised volume combination.

**Key Changes Since the June 2009 Forecast Update**

- The FY10 timber sales target was decreased from 950,000 new cords to 825,000 new cords.
- The timber revenue forecast line item "Lump Sum Sales Adjustment" was added to fully capture the revenue from timber sales that are paid in full at the time of sale (lump sum payment). By statute, lump sum sales are limited to informal commercial permits:
- The timber revenue forecast line item "Scaled Sales Growth Adjustment" was added to fully capture down payment revenue from volume growth above the initial sale down payment volume.

**Basic Assumptions for the September 2009 Forecast**

- The statewide all-ownership timber harvest will be at least 2.6 million cords in FY 2010 with an expectation of incremental increases in FY 2011 and FY 2012.
- The length of winter logging season will be comparable to the past two years.
- Internal initiatives in the areas of timber sale packaging, marketing, and increasing harvest operations flexibility will have a positive effect on removals volume over the forecast period.
- No penalty free blanket permit extensions will be made in FY10.

**Trends**

*Sales Volume and Pricing* - Sales volume continues to be impeded by poor market conditions and reduced market size as indicated by the FY09 sell rate at 80 percent of volume offered. The Northeast Region was hit hardest by shrinking market demand with 77 percent of unsold DNR volume as of June 30. With the FY10 offer target reduced to 825,000 cords, a 13 percent reduction from last year's 950,000 cord target, the expectation is lower sales volume as compared to last year. The MED forecast is 800,000 cords sold as compared to 917,000 cords sold in FY09.

*Removals Volume and Pricing* - FY 2009 closed with 717,170 cords plus 4.6 million board feet of sawtimber harvested from DNR administered lands. While uncertainty prevails, there is an expectation that the FY 2010 harvest volume will be at least equal to the FY09 harvest volume. The MED forecast is based on a 750,000 cord harvest including 741,000 cords and 4.5 million board feet (9,000 cord equivalent) sawtimber. However, purchasers control the volume and timing of harvest and could delay harvest beyond current permit expiration dates, particularly if economic recovery and wood market conditions are slower than anticipated.

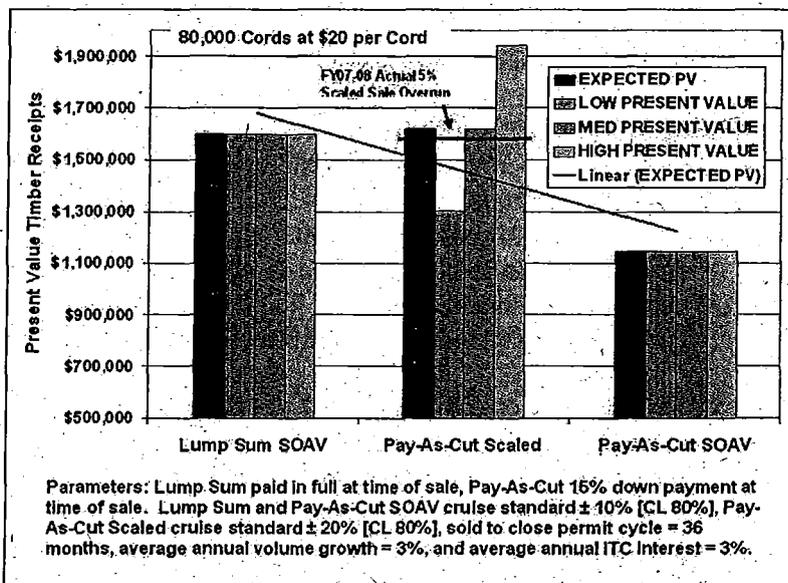
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*Pay-As-Cut SOAV Increasing Risk of Unrealized Revenue* - Timber is sold in two basic ways, lump sum or pay-as-cut, the key difference being timing of payment. Lump sum sales are paid in full at the time of sale while pay-as-cut sales generally require a down payment with the balance due as timber is harvested. For timber sold by the lump sum method, volume is always based on the

DNR Timber Sale Typology			
Sale Method	Scale Method	FY09 %	FY10 %
Pay-As-Cut	Scaled	91	81
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Total (%)		100	100

appraisal. While 90+ percent of timber sold by the pay-as-cut method is scaled for payment, DNR has historically sold 6-10 percent by pay-as-cut sold on appraised volume (SOAV).

As per legislative mandate, the Division has been directed to increase the volume of pay-as-cut sales sold on appraised volume (SOAV) in FY10. Permits will likely be standard 3-year term. Using the Sept09 FY10 800,000 cord sales forecast and the forecast average sales price of \$20 per cord, an increase of pay-as-cut SOAV from the FY09 8 percent to 18 percent in FY10 would shift 80,000 cords from pay-as-cut scaled to pay-as-cut SOAV, reducing expected timber revenue by \$478,500 as compared to selling the same volume pay-as-cut scaled, the difference being unrealized sale volume growth that occurs between the point in time the sale is cruised and the point in time when the sale is harvested.



### Funds Allocation

Acquired Forestry and Con-Con dollars are allocated on a revenue basis while School/University Trust dollars are allocated on a cost basis. The current land class distribution of timber inventory by book value is similar to historical averages. However, annual removals may deviate from historical averages by as much as  $\pm 5\%$  by fund. Hence, annual adjustments are necessary to compensate. FY10 fund allocations estimated using the Sept09 FY10 MED revenue forecast were UNCHANGED from the Jun09 allocations.

Example Funds Allocation, Sept09 FY10 MED Revenue Forecast (\$16,195,000).

Account	Allocation Factor	Allocation	FMIA Portion	FMIA Receipts and Transfers
Acquired Forestry	0.222	\$3,600,000	100%	\$3,600,000
Con-Con	0.241	\$3,896,000	50%	\$1,950,000
School / Univ. Trust <sup>b</sup>	---	certified cost	cost	certified cost

<sup>a</sup>FY10 School / Univ. Trust certified costs transferred to the FY11 FMIA account balance. Actual values are subject to significant year-to-year variability.

## DISCUSSION

The timber sales revenue forecast is a combination of four distinct forecast variables. An additional step is then required to estimate the portion of timber revenue allocated to the Division of Forestry budget. A portion of timber sales revenue is eventually available for Division budgeting while a significant amount is distributed to various accounts and entities including the School / University Trust accounts, General Fund, and Minnesota counties. Each component of the revenue forecast has its own unique set of metrics, range of variation, drivers, constraints, and inherent uncertainties. Forecast variables and metrics:

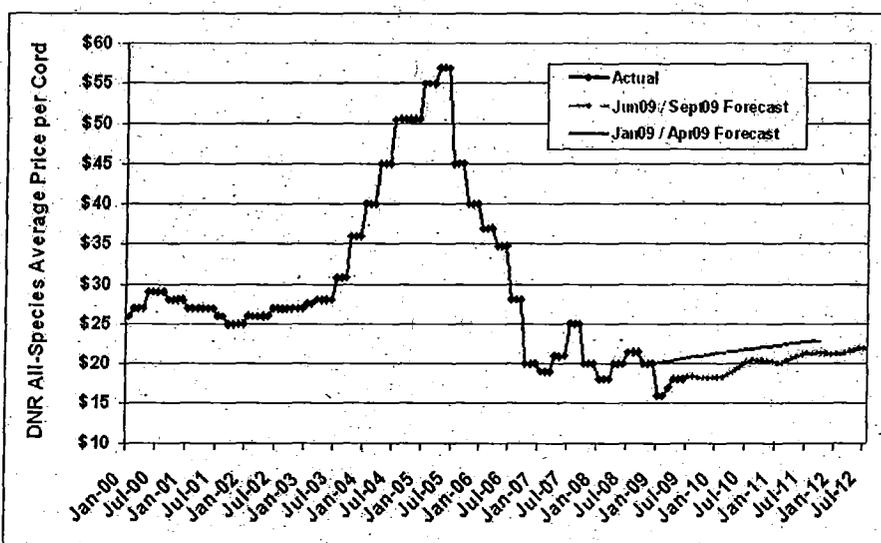
1. sales volume (volume offer "target" minus an estimate of no-bid sales),
2. sales average per-unit price (regression model utilizing monthly stumpage price, product price, and housing starts time-series data),
3. removals volume (5-year average adjusted for forecast offer and sales volume, permit expiration dates, market area wood use expectations, internal initiatives, and operational constraints), and
4. removals average per-unit price, (value of timber under contract by fiscal year expiration adjusted for current fiscal year sales price expectations and default risk).

### 1. Forecast Sales Volume

Including re-offers, FY10 and FY11 forecast sales volumes were reduced to 800,000 and 850,000 cords respectively assuming 930,000 cords offered in FY10 and 950,000 cords offered in FY11 with sell rates of 86 percent and 90 percent respectively. The FY12 forecast sales volume was reduced to 893,000 cords assuming 950,000 cords offered with a 94 percent sell rate.

### 2. Forecast Sales Average Per-Unit Price

Forecast sales average per-unit prices were unchanged. The FY10 forecast average per-unit price remained at \$19.75 per cord. The FY11 forecast sales per-unit price remained at \$21 per cord and the FY12 sales price remained at \$22 per cord. Selling prices are expected to remain flat through the first half of FY10 then start to increase over the remainder of the forecast period as the economy recovers.



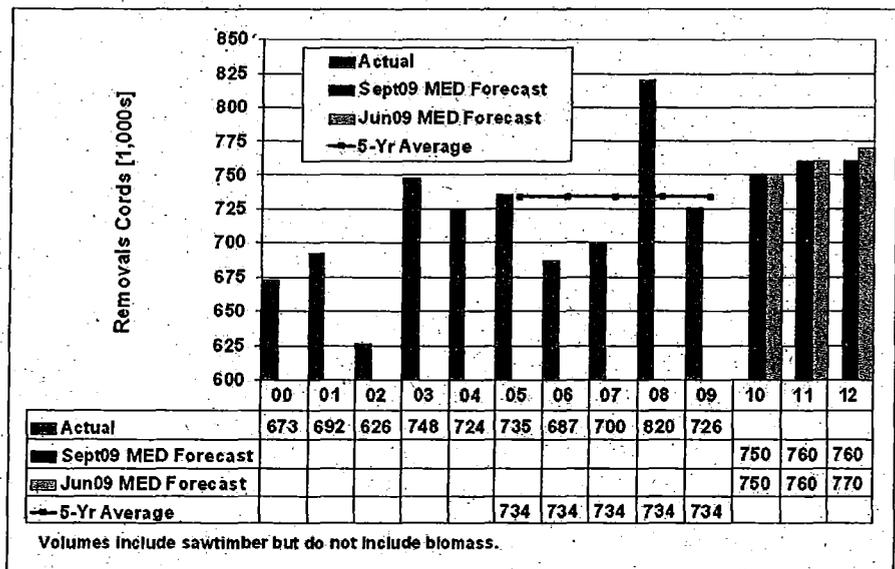
The forecast sales average per-unit price was developed using a factored autoregressive (AR) econometric model in the form AR (Lag 1) with a weighted product price index (SLOP Lag 3) and housing starts (Lag 1) used as regression variables. The model was fit to monthly data from January 1995 through June 2009. All parameters were significant at  $\geq 97\%$ . The model root mean squared error (RMSE) = 1.7364 with  $R^2 = 0.967$  (Table 1).

Table 1. Factored AR(1) Model Parameter Estimates.

Parameter	Estimate	Std. Error	t Value	Prob >  t
Intercept	19.2118	5.2271	3.6754	0.0003
Autoregressive (Lag 1)	0.9787	0.0144	68.0129	<0.0001
4/5/1 SLOP (Lag 3)	0.0184	0.0084	2.2057	0.0288
Housing Starts (Lag 1)	0.0206	0.0095	2.1796	0.0307

### 3. Forecast Removals Volume

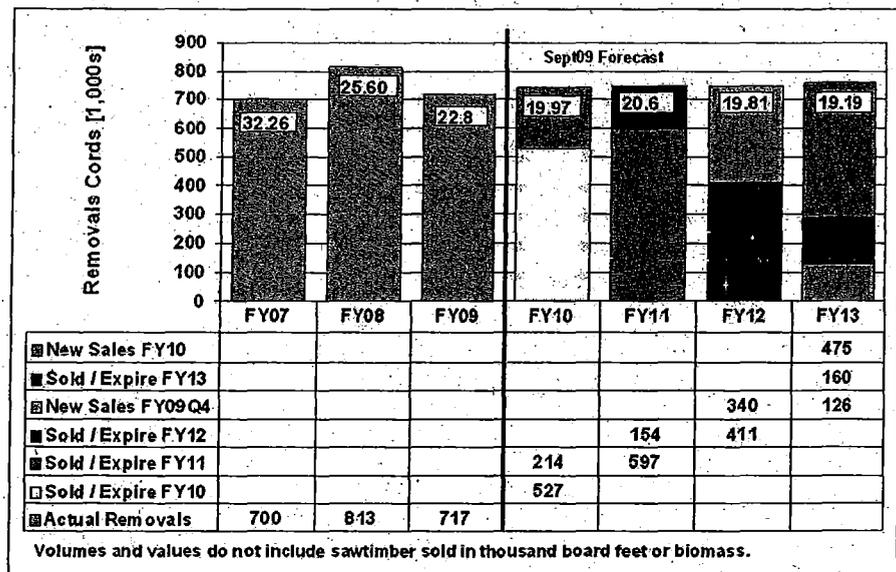
Removals volume is highly variable and difficult to forecast as demonstrated by comparing the FY09 726,000 cord harvest to the FY08 820,000 cord harvest. While the number of winter logging days remain an important factor, reduced demand, supply from other sources, stumpage prices, and internal policies have year-to-year impacts on removals volume. For the Sept09 update, FY10-11 removals volumes were unchanged. The FY12 forecast volume was decreased from 770,000 cords to 760,000 cords.



### 4. Forecast Removals Average Per-Unit Price

FY09 closed with 908,182 cords sold at an average \$19.30 per cord as compared to the Apr09 forecast of 820,000 cords sold at an average \$20.85 per cord.

Given the lack of sales activity since the Jun09 update, forecast removals average per unit prices remain unchanged for the forecast period. For FY10-12, the forecast removals average per-unit price is flat at ±\$20 per cord. Of note, uncut timber inventory (volume under contract) is sold well into FY13 using the Sept09 forecast removals volumes.



### Funds Allocation

Acquired Forestry and Con-Con dollars are allocated on a revenue basis while School/University Trust dollars are allocated on a cost basis. The current land class distribution of timber inventory by book value is similar to historical averages. However, annual removals may deviate from the current timber inventory distribution and historical averages by as much as ±5% by fund. Hence, annual adjustments are necessary to compensate. FY10 fund allocations estimated using the Jun09 FY10 MED revenue forecast were unchanged from the Jun09 forecast.

**TABLES**

**FY 2009 Timber Revenue Reconciliation**

FY2009 TIMBER SALES REVENUE (Final)	Sept 14th		Apr09 MED		Sept 14th	
	VOL CDS	TR	Close	Forecast		Close
SOLD CORDS	908182	\$17,527,913	\$2,629,187	\$2,583,000		
SOLD SAWTIMBER	8916	\$678,597	\$101,790	\$94,500		
SOLD OTHER		\$602,834	\$90,425	\$86,250		
LUMP SUM SALES ADJ		\$175,279	\$148,987	n/a		
REMOVALS CORDS	717170	\$16,401,678	\$13,941,426	\$13,528,600		
REMOVALS SAWTIMBER	9258	\$961,721	\$817,463	\$722,500		
REMOVALS OTHER		\$543,651	\$462,103	\$425,000		
SCALED SALES GROWTH		\$1,343,297	\$199,502	n/a	FY2009	REVENUE
OTHER 5348 INC		\$105,988	\$105,988	n/a		
OTHER TIMBER INC		\$150,735	\$150,735	\$110,000	CLOSE	\$19,560,548
ACCTS RECEIVABLE GAIN		\$912,942	\$912,942	\$2,000,000		
<b>SUM ALL TS REVENUE</b>			<b>\$19,560,548</b>	<b>\$19,549,850</b>		

FY09 TIMBER SOLD ALL SALES						
QTR	VOL CDS	VALUE CDS	AVG\$/CD	VOL MBF	VALUE MBF	AVG\$/MBF
FY09Q1 (actual)	111332	\$2,405,698	\$21.61	882	\$167,278	\$189.66
FY09Q2 (actual)	284993	\$6,028,307	\$21.15	1001	\$188,090	\$187.90
FY09Q3 (actual)	45388	\$716,933	\$15.80	64	\$5,645	\$88.20
FY09Q4 (actual)	466469	\$8,374,481	\$17.95	2511	\$317,595	\$126.48
<b>SUM / wAVG</b>	<b>908182</b>	<b>\$17,525,419</b>	<b>\$19.30</b>	<b>4458</b>	<b>\$678,608</b>	<b>\$152.22</b>

FY09 TIMBER SCALED (REMOVALS) ALL SALES						
QTR	VOL CDS	VALUE CDS	AVG\$/CD	VOL MBF	VALUE MBF	AVG\$/MBF
FY09Q1 (actual)	158325	\$4,141,573	\$26.16	738	\$112,843	\$152.90
FY09Q2 (actual)	146659	\$3,764,306	\$25.67	1789	\$411,501	\$230.02
FY09Q3 (actual)	339313	\$6,796,620	\$20.03	1577	\$320,736	\$203.38
FY09Q4 (actual)	72873	\$1,699,711	\$23.32	525	\$116,638	\$222.17
<b>SUM / wAVG</b>	<b>717170</b>	<b>\$16,402,210</b>	<b>\$22.87</b>	<b>4629</b>	<b>\$961,718</b>	<b>\$207.76</b>

**NOTES**

Timber sold \* 0.15 = sold portion TR.

Timber removals \* 0.85 = removals portion of TR.

LUMP SUM SALES ADJ = SOLD CDS\$ \* %LUMP SUM \* 0.85; corrects for sales paid 100% at time of sale.

SOLD / REMOVALS BIOMASS includes products sold at \$0.80 per ton.

SOLD / REMOVALS OTHER includes products sold by piece and per acre.

SCALED SALES GROWTH = REMOVALS CDS\$ \* %SCALED \* %GROWTH \* 0.15; corrects for down payment growth

OTHER 5348 INCOME sub codes 4-7, trespass, fuelwood, special products, and damages.

OTHER TIMBER INCOME includes all funds TS interest & penalty (5349) and 18J Interest Income (8000).

**FY 2010-12 Timber Revenue Forecast Tables**

FY2010 FORECAST TIMBER SALES REVENUE				Jun09	Sept09
	VOL CDS	TR	PORTION TR	Forecast	Forecast
SOLD CORDS*	791000	\$15,622,250	\$2,343,338	\$2,666,250	
SOLD SAWTIMBER	9000	\$675,000	\$101,250	\$90,000	
SOLD BIOMASS	30000	\$54,000	\$8,100	\$8,100	
SOLD OTHER		\$100,000	\$15,000	\$15,000	
LUMP SUM SALES ADJ		\$156,223	\$132,789	n/a	
REMOVALS CORDS	741000	\$14,820,000	\$12,597,000	\$12,614,000	
REMOVALS SAWTIMBER	9000	\$765,000	\$650,250	\$578,000	
REMOVALS BIOMASS	30000	\$54,000	\$45,900	\$45,900	<b>FY2010 REVENUE</b>
REMOVALS OTHER		\$100,000	\$85,000	\$85,000	LOW (-10%) \$14,575,502
SCALED SALES GROWTH		\$809,172	\$121,376	n/a	<b>MED</b> \$16,195,002
OTHER TIMBER INC		\$95,000	\$95,000	\$65,000	HIGH (+10%) \$17,814,503
<b>SUM MED FORECAST</b>			<b>\$16,195,002</b>	<b>\$16,167,250</b>	

\*Volume sold estimate based on 930,000 cords offered with an 86% sell rate; does not include biomass.

FY2011 FORECAST TIMBER SALES REVENUE				Jun09	Sept09
	VOL CDS	TR	PORTION TR	Forecast	Forecast
SOLD CORDS*	846000	\$17,766,000	\$2,664,900	\$2,992,500	
SOLD SAWTIMBER	9000	\$765,000	\$114,750	\$102,000	
SOLD BIOMASS	35000	\$63,000	\$9,450	\$9,450	
SOLD OTHER		\$100,000	\$15,000	\$15,000	
LUMP SUM SALES ADJ		\$177,660	\$151,011	n/a	
REMOVALS CORDS	751000	\$15,020,000	\$12,767,000	\$12,784,000	
REMOVALS SAWTIMBER	9000	\$765,000	\$650,250	\$578,000	
REMOVALS BIOMASS	35000	\$63,000	\$53,550	\$53,550	<b>FY2011 REVENUE</b>
REMOVALS OTHER		\$100,000	\$85,000	\$85,000	LOW (-10%) \$15,042,650
SCALED SALES GROWTH		\$720,960	\$108,144	n/a	<b>MED</b> \$16,714,055
OTHER TIMBER INC		\$95,000	\$95,000	\$65,000	HIGH (+10%) \$18,385,461
<b>SUM MED FORECAST</b>			<b>\$16,714,055</b>	<b>\$16,684,500</b>	

\*Volume sold estimate based on 950,000 cords offered with a 90% sell rate; does not include biomass.

FY2012 FORECAST TIMBER SALES REVENUE				Jun09	Sept09
	VOL CDS	TR	PORTION TR	Forecast	Forecast
SOLD CORDS*	884000	\$19,448,000	\$2,917,200	\$2,976,600	
SOLD SAWTIMBER	9000	\$900,000	\$135,000	\$120,000	
SOLD BIOMASS	40000	\$72,000	\$10,800	\$10,800	
SOLD OTHER		\$100,000	\$15,000	\$15,000	
LUMP SUM SALES ADJ		\$194,480	\$165,308	n/a	
REMOVALS CORDS	751000	\$15,020,000	\$12,767,000	\$12,954,000	
REMOVALS SAWTIMBER	9000	\$855,000	\$726,750	\$646,000	
REMOVALS BIOMASS	40000	\$72,000	\$61,200	\$61,200	<b>FY2012 REVENUE</b>
REMOVALS OTHER		\$100,000	\$85,000	\$85,000	LOW (-10%) \$15,377,762
SCALED SALES GROWTH		\$720,960	\$108,144	n/a	<b>MED</b> \$17,086,402
OTHER TIMBER INC		\$95,000	\$95,000	\$65,000	HIGH (+10%) \$18,795,042
<b>SUM MED FORECAST</b>			<b>\$17,086,402</b>	<b>\$16,933,600</b>	

\*Volume sold estimate based on 950,000 cords offered with a 94% sell rate; does not include biomass.

**FORECAST PARAMETERS and ASSUMPTIONS**

Sawtimber converted to cords @ 2 cords per MBF.

FY10 forecast SOLD cords wavg price = \$19.75/cd and REMOVALS cords wavg price = \$20/cd.

FY11 forecast SOLD cords wavg price = \$21/cd and REMOVALS cords wavg price = \$20/cd.

FY12 forecast SOLD cords wavg price = \$22/cd and REMOVALS cords wavg price = \$20/cd.

Timber sold \* 0.15 = sold portion TR.

Timber removals \* 0.85 = removals portion of TR.

LUMP SUM SALES ADJ = SOLD CDS\$ \* %LUMP SUM \* 0.85; corrects for sales paid 100% at time of sale.

SOLD / REMOVALS BIOMASS includes products sold at \$0.80 per ton.

SOLD / REMOVALS OTHER includes products sold by piece and per acre.

SCALED SALES GROWTH = REMOVALS CDS\$ \* %SCALED \* %GROWTH \* 0.15; corrects for down payment growth

OTHER 5348 INCOME sub codes 4-7, trespass, fuelwood, special products, and damages.

OTHER TIMBER INCOME includes all-funds TS interest & penalty (5349) and 18J Interest Income (8000).

**Department of Natural Resources  
Natural Resources Planning Statement  
FY 2009 Forecast Close**

		FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013
		Actual	Actual	Actual	Planning Est	Planning Est	Planning Est	Planning Est
<b>18J Forestry Management Investment Account</b>								
<b>Legal Citation: M.S. 89.039</b>								
Balance Forward In		6,497,722	9,065,146	5,848,635	1,397,685	484,760	(267,640)	(1,035,640)
	Prior Year Adjustments	44,707	16,201	78,404	0	0	0	0
	Adjusted Balance Forward	6,542,429	9,081,347	5,927,039	1,397,685	484,760	(267,640)	(1,035,640)
<b>Receipts</b>								
5348	Timber Sales (1)	5,893,701	5,297,011	4,298,332	3,600,000	3,670,600	3,725,000	3,960,000
5349	Timber sales interest and penalty	4,937	158,697	3,044	3,000	3,000	3,000	3,000
8000	Investment Income	348,047	202,041	62,324	62,000	62,000	62,000	62,000
8340	Credit Agreement Rebate		67	72	75	0	0	0
8360	Refunds of Prior Yr Expenditure	0	5	26,254	0	0	0	0
	Subtotal Receipts	6,246,685	5,657,821	4,390,026	3,665,075	3,735,600	3,790,000	4,025,000
<b>Transfers In</b>								
	From Fund 200, CON. CON Areas Account (2)	2,428,469	3,070,133	1,874,581	1,950,000	2,002,000	2,032,000	2,160,000
	From Fund 610, University Susp Account	31,898	30,743	40,385	35,000	35,000	35,000	35,000
	From Fund 860, School Susp Account (3)	4,088,530	3,940,487	5,180,834	5,700,000	5,000,000	4,900,000	4,500,000
	Total Transfer in	6,548,897	7,041,363	7,095,800	7,685,000	7,037,000	6,967,000	6,695,000
	Total Receipts and Transfers In	12,795,583	12,699,183	11,485,826	11,350,075	10,772,600	10,757,000	10,720,000
<b>TOTAL RESOURCES AVAILABLE:</b>		19,338,012	21,780,530	17,412,864	12,747,760	11,257,360	10,489,360	9,684,360
<b>Expenditures</b>								
	Lands Records Management System	0	0	0	1,032,000	344,000	344,000	344,000
	Forest Management	10,219,351	12,898,681	14,327,949	12,193,000	11,093,000	11,093,000	11,093,000
	Enhance Sales FMIA (Appr. 302)	0	407,423	449,712	0	0	0	0
	Forest Improvement FMIA (Appr.303)	0	596,567	401,007	0	0	0	0
	Forest Road Maintenance FMIA (Appr. 304)	0	787,131	284,573	0	0	0	0
	Ecological classification FMIA (Appr. 301)	0	104,430	201,417	0	0	0	0
	Invasive Species FMIA (Appr. 305)	0	87,198	100,710	0	0	0	0
	Re-Inventory FMIA (Appr. 306)	0	116,542	162,088	0	0	0	0
	Logger Refund - Relief Paymts Timber	0	851,122	0	0	0	0	0
	Minnesota Conservation Corps	25,000	25,000	25,000	25,000	25,000	25,000	25,000
	Statewide Indirect Costs (Forestry-Appr 007)	28,515	57,802	62,724	63,000	63,000	63,000	63,000
	Planned Agency Unallotment (4)				(1,050,000)	0	0	0
	Total Expenditures	10,272,866	15,931,896	16,015,179	12,263,000	11,525,000	11,525,000	11,525,000
<b>FUND BALANCE</b>		<u>9,065,146</u>	<u>5,848,635</u>	<u>1,397,685</u>	<u>484,760</u>	<u>(267,640)</u>	<u>(1,035,640)</u>	<u>(1,840,640)</u>

(1) FY10 acquired revenue estimated at 0.222 times total revenue, FY11+ estimated at 0.22 times total revenue.

(2) FY10 con-con revenue estimated at 0.241 time total revenue, FY11+ estimated at 0.24 times total revenue.

(3) FY10+ trust cost transfer estimated at 19% forest mgt expenses with a revenue cap.

(4) In order to manage and certify costs in FY10, the division is expecting a planned agency unallotment of \$1,050,000 with the understanding that if revenues increase, the division may choose to allot funds back or transfer balance to FY11.