

BEFORE THE MINNESOTA PUBLIC UTILITIES COMMISSION
121 7th Place East, Suite 350
St. Paul, MN 55101-2147

In the Matter of Otter Tail Power Company's
Petition for Approval of the Customer
Eligibility, Updated Baseline and Annual
Update to its Energy-Intensive, Trade-
Exposed Rider Surcharge Rate

PUC Docket No. E-017/M-21-99

AFFIDAVIT OF WADE SEMELISS

STATE OF MINNESOTA)
) ss.
COUNTY OF HUBBARD)

I, Wade Semeliss, being first duly sworn upon oath, state as follows:

1. I am the Lumbermill Manager at the PotlatchDeltic lumber mill in Bemidji, Minnesota (the "PotlatchDeltic Mill"), the largest lumber producer in the state. The PotlatchDeltic Mill produces precision cut studs (in 2"x4" and 2"x6" sizes, 7' to 9' in length).

The PotlatchDeltic Mill's Contributions to Minnesota

2. The PotlatchDeltic Mill is a large employer in northwest Minnesota, employing an average of 110 people during 2020. The total wages for these employees are close to [TRADE SECRET DATA BEGINS... ██████████ ...TRADE SECRET DATA ENDS], the total benefits are approximately [TRADE SECRET DATA BEGINS... ██████████ ...TRADE SECRET DATA ENDS], and the payroll for the PotlatchDeltic Mill is roughly [TRADE SECRET DATA BEGINS... ██████████ ...TRADE SECRET DATA ENDS]. Average compensation at the PotlatchDeltic Mill is [TRADE SECRET DATA BEGINS... ██████████ ...TRADE SECRET DATA ENDS] per year, and turnover averages around 5%. Our starting hourly wage for an entry level mill position is over \$24 per hour, plus a substantial benefits package that includes, among other benefits, paid vacation, paid sick leave, medical, dental, and vision insurance, 401k match, and short- and long-term disability insurance.

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3. During the recent COVID-19 pandemic, the PotlatchDeltic Mill was deemed an “essential, critical infrastructure” business. The PotlatchDeltic Mill has been a stable employer throughout the pandemic and did not curtail or reduce hours for any employees, or conduct any layoffs. The PotlatchDeltic Mill has initiated several new safety protocols to combat the spread of the virus such as daily health screenings, daily mill-wide sanitization, mandated use of face masks, upgraded ventilation systems, and paid quarantine leave at full salary for any employee who tests positive or is required to quarantine due to symptoms or as the result of contact tracing. This has resulted in the PotlatchDeltic Mill avoiding having to shut down for any period of time.
4. According to methodology replicated from the UMD Labovitz School of Business study entitled “The Economic Impact of Minnesota’s Forestry-related Industries on the State of Minnesota,” and updated IMPLAN multipliers from the AgriGrowth / Decision Innovation Solutions report entitled “2020 Economic Contribution Study of Minnesota Agriculture and Forestry,” a copy of which is attached to the affidavit of Michael Birkeland, every job in a sawmill creates an additional 3.69 jobs throughout the state. Thus, PotlatchDeltic directly and indirectly supports 406 jobs in the surrounding community.
5. In 2020, we estimate the PotlatchDeltic Mill paid in excess of [TRADE SECRET DATA BEGINS... ██████████ ...TRADE SECRET DATA ENDS] in property and corporate franchise taxes, including [TRADE SECRET DATA BEGINS... ██████████ ██████████ ...TRADE SECRET DATA ENDS].
6. For 2020, the annual revenue generated by the PotlatchDeltic Mill was approximately [TRADE SECRET DATA BEGINS... ██████████ ...TRADE SECRET DATA ENDS].
7. Without the PotlatchDeltic Mill, the average market for red pine (spread across sawtimber, pulp and bolts, and pulpwood) could be dramatically reduced, resulting in a decrease in value of the state’s red pine forests. Attached as Exhibit A to my affidavit is the “2019 Minnesota Public Agencies Stumpage Price Review and Price Indices” dated August 5, 2020 (“Stumpage Review”). The summary table on page 13 of the Stumpage Review details the prices for various species of wood sold by Minnesota public agencies. Of import here is the value of red pine, and the level of the PotlatchDeltic Mill’s consumption. The

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PotlatchDeltic Mill consumes approximately [TRADE SECRET DATA BEGINS... [REDACTED] ...TRADE SECRET DATA ENDS] annually, of which approximately [TRADE SECRET DATA BEGINS... [REDACTED] ...TRADE SECRET DATA ENDS] is red pine. Of the red pine sold by Minnesota public agencies, the PotlatchDeltic Mill purchases the vast majority, nearly [TRADE SECRET DATA BEGINS... [REDACTED] ...TRADE SECRET DATA ENDS], or over [TRADE SECRET DATA BEGINS... [REDACTED] ...TRADE SECRET DATA ENDS]. If the PotlatchDeltic Mill were not operating, that red pine would be valued as pulpwood, which could have two detrimental impacts. First, the dollar multiplier for money spent on public stumpage could significantly decrease because of the drop in value from \$38.64 per cord to \$6.85 per cord. Second, and more broadly speaking, the value of the state's pine forest could drop precipitously. Current prices for red pine pulpwood are approximately 17% of the value of saw bolts. If the state's red pine forests were valued as pulpwood, the resource could lose approximately 83% of its value. Given the fact that PotlatchDeltic uses approximately [TRADE SECRET DATA BEGINS... [REDACTED] ...TRADE SECRET DATA ENDS] of the red pine in the state that is used for pulp and bolts, a closure of the PotlatchDeltic Mill could result in more than a [TRADE SECRET DATA BEGINS... [REDACTED] ...TRADE SECRET DATA ENDS] decrease in the value of the state's red pine forests (private, state, county, and federal).¹

8. As a result of the market the PotlatchDeltic Mill provides, pine forests on private and public lands are managed for a variety of forest uses such as wildlife, recreation, and forest products Minnesotans use every day.
9. The PotlatchDeltic Mill takes its forest stewardship role very seriously. In the past decade, the PotlatchDeltic Mill has been instrumental in the cleanup of hundreds of thousands of acres following several significant windstorms and forest fires that devastated public lands by providing a market for damaged lumber that other mills could not or would not use. At the time, public officials such as Senator Al Franken, National Forest Service Supervisor

¹ [TRADE SECRET DATA BEGINS... [REDACTED] ...TRADE SECRET DATA ENDS] of an 83% reduction is approximately [TRADE SECRET DATA BEGINS... [REDACTED] ...TRADE SECRET DATA ENDS].

Darla Lenz, and State Forester Forrest Boe recognized the PotlatchDeltic Mill's contributions to this vital effort.

10. In addition to the PotlatchDeltic Mill's forest stewardship, our employees are active in the local community. Our employees volunteer as youth sports coaches, church leaders, and with other civic organizations. Our leaders hold leadership positions in many organizations including the Greater Bemidji economic development organization, Northwest Technical College Foundation and Business Advisory Councils, Eagle's Club, and Knights of Columbus, to name a few. Our company matches all employee contributions to local United Way chapters at 50%. Our company matches employee gifts to educational institutions of their choice at 100% up to \$1,500 annually per employee. In addition, the PotlatchDeltic Mill annually donates \$12,000 to a variety of organizations such as the Boys and Girls Clubs of Bemidji.

Electric Rates for the PotlatchDeltic Mill Are Uncompetitive

11. Electric energy costs are a significant component of PotlatchDeltic's operations, with a 2021 forecast of approximately [TRADE SECRET DATA BEGINS... [REDACTED] ...TRADE SECRET DATA ENDS] of PotlatchDeltic's operating costs.
12. The PotlatchDeltic Mill is serious about conserving electricity. Through Otter Tail Power's Conservation Improvement Program, the PotlatchDeltic Mill invested [TRADE SECRET DATA BEGINS... [REDACTED] ...TRADE SECRET DATA ENDS] in a full modernization of our facility, which included [TRADE SECRET DATA BEGINS... [REDACTED] ...TRADE SECRET DATA ENDS] for conservation programs such as efficient plant lighting, energy efficient motors, utilization of frequency drives to manage loads, and utilizing independent professional audits on compressed air utilization and efficiency. The PotlatchDeltic Mill has been able to increase production by [TRADE SECRET DATA BEGINS... [REDACTED] ...TRADE SECRET DATA ENDS] while reducing our electricity consumption by [TRADE SECRET DATA BEGINS... [REDACTED] ...TRADE SECRET DATA ENDS] and our demand by [TRADE SECRET DATA BEGINS... [REDACTED] ...TRADE SECRET DATA ENDS]. Since 2017, our kWh per unit of lumber produced has dropped from [TRADE SECRET DATA BEGINS... [REDACTED]

[REDACTED]

[REDACTED] ...TRADE SECRET DATA ENDS].

13. Because electric energy is a significant cost to our operations, it is important to compare our electric energy costs to our competitors in order to understand our overall competitiveness. Attached as Exhibit B to my affidavit is a true and correct copy of pertinent portions of a 2017 study on competitiveness of various lumber mills conducted by the Beck Group (the "Competitiveness Study"). The other stud mills in the study are located in Oregon, Idaho, Colorado, Montana, and Michigan.²
14. Page 24 of the Competitiveness Study shows the various mills' average electrical power rate. To put the PotlatchDeltic Mill's rates in comparison, it was paying a rate of approximately [TRADE SECRET DATA BEGINS... [REDACTED]
[REDACTED]
[REDACTED] ...TRADE SECRET DATA ENDS], in 2016, resulting in a ranking tied with mills [TRADE SECRET DATA BEGINS... [REDACTED] ...TRADE SECRET DATA ENDS] out of 9 mills. Since the Competitiveness Study was completed, the PotlatchDeltic Mill's rates have benefitted from participating in both the LGS Rider (aka "Interruptible Power Program") and EITE.
15. No more recent stud mill benchmark reports have been conducted since 2016. However, using company internal data as a proxy, the PotlatchDeltic Mill's electric-energy rate in 2019, in the absence of participating in the LGS Rider and EITE, would have been [TRADE SECRET DATA BEGINS... [REDACTED] ...TRADE SECRET DATA ENDS]. That rate would have made the PotlatchDeltic Mill's electric-energy rate [TRADE SECRET DATA BEGINS... [REDACTED] ...TRADE SECRET DATA ENDS] out of PotlatchDeltic Land & Lumber, LLC's six sawmills nationwide. Exhibit C is a chart from the U.S. Energy Information Administration which shows average retail industrial electricity rates by state from 2002 to 2019. The chart clearly shows that Minnesota's rate

² The PotlatchDeltic Mill was not included in the study, but another PotlatchDeltic mill in Gwinn, Michigan was included (the "PotlatchDeltic Gwinn Mill"), which is why we were permitted to see the results.

of growth in energy cost has outstripped most timber producing states and the nationwide price significantly since 2016.

The PotlatchDeltic Mill Is Subject to Global Pressures

16. In addition to high electric rates, the PotlatchDeltic Mill faces intense competition from Canadian mills that have many advantages beyond the PotlatchDeltic Mill's control, including weaker Canadian currency, the absence of quotas and recent reduction in tariffs that protected American mills, lower environmental standards, and subsidies from the Canadian government. Without significant tariffs and quotas to protect the market, as well as the currency exchange imbalance, it is not unreasonable to expect that Canadian mills will continue to increase shipments of lumber into the U.S. market as evidenced by the chart in Exhibit D which shows Canadian lumber producers have increased their share of production to the U.S. from 41% to 57% over the last decade, which places additional competitive pressures on our Minnesota operation.

Consequences of Inaction Are Significant

17. [TRADE SECRET DATA BEGINS... [REDACTED] ...TRADE SECRET DATA ENDS].

18. There would be significant costs to the region and the state if the PotlatchDeltic Mill were to shut down, including lost jobs, decreased tax revenue, lower community investment, and diminished forest stewardship.

19. If the PotlatchDeltic Mill continues receiving a 20% rate reduction as a result of a new EITE tariff, it is reasonably likely that this discount would be one of the factors that will keep the PotlatchDeltic Mill viable.

FURTHER YOUR AFFIANT SAYETH NOT.

Dated: FEBRUARY 1, 2021

W. A. G.
Wade Semeliss, Lumbermill Manager
PotlatchDeltic Land & Lumber, LLC

Subscribed and sworn to before me
this 1st day of FEBRUARY 2021.

Kelsey Boe
Notary Public

My commission expires: 1/31/2022

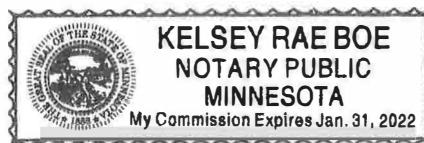


EXHIBIT A

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EXHIBIT A



2019 Minnesota Public Agencies Stumpage Price Review and Price Indices

August 5, 2020

Download at URL: <http://www.dnr.state.mn.us/forestry/timbersales/stumpage.html>

Highlights

- In 2019, all species and products stumpage sold by public agencies in Minnesota totaled 1.685 million cord equivalents with a value of \$42.792 million as compared to 1.716 million cord equivalents sold with a value of \$45.623 million in 2018. This amounts to a year-over-year volume decrease of 31,380 cord equivalents or 1.8 percent and a year-over-year value decrease of \$2.831 million or 6.2 percent (Figure 1). In 2019, the average all species and products sell price was \$25.40 per cord equivalent compared to \$26.59 in 2018, a price decrease of \$1.19 per cord equivalent or 4.5 percent.

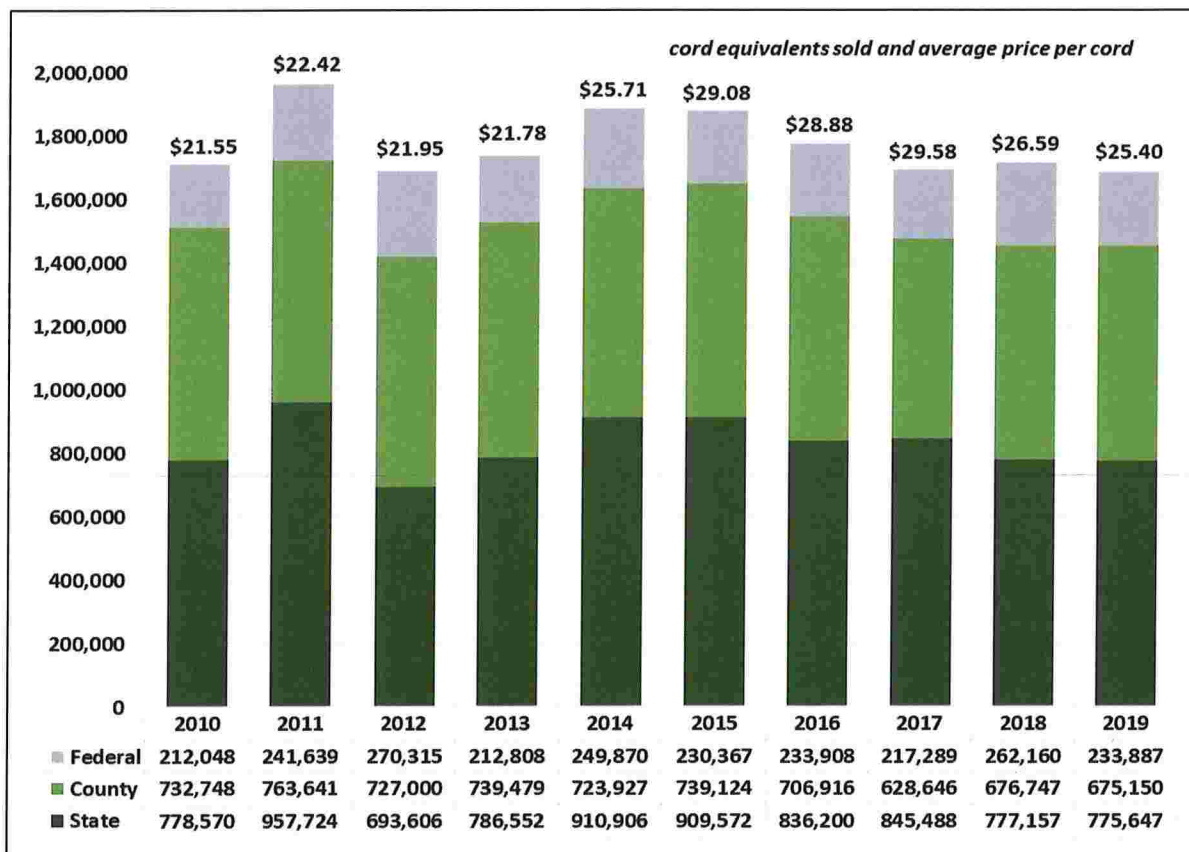


Figure 1: Volume sold by ownership category and average sell price per cord, 2010-2019. (a)

a) Product categories: sawtimber, pulp & bolts, pulpwood, fuelwood, and biomass.

- In 2019, the average stumpage price received by public agencies for all-species hardwood cord products decreased to \$24.40 per cord from \$27.27 per cord in 2018, a price decrease of \$2.87 per cord or 11.8 percent. In 2019, the average public agencies aspen stumpage price received was \$28.55 per cord compared to \$32.20 per cord in 2018, a price decrease of \$3.65 per cord or 11.3 percent (Figure 2, Table 2, page 6).

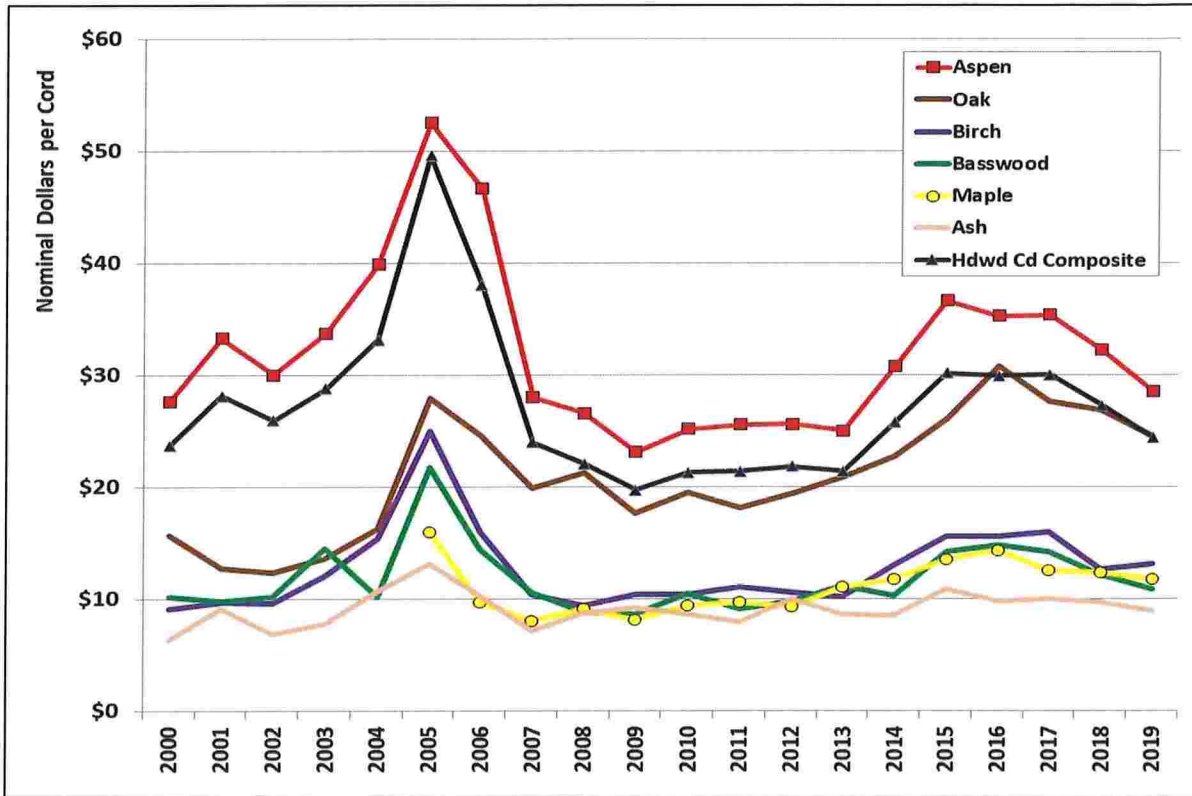


Figure 2: Hardwood cord product prices by species group, 2010-2019. (a)
 a) Product categories: pulp & bolts and pulpwood only.

- In 2019, the average stumpage price received by public agencies for all-species softwood cord products increased to \$23.21 per cord from \$23.07 per cord in 2018, a price increase of \$0.14 per cord or 0.6 percent. In 2019, the average public agencies red pine cord products stumpage price was \$33.14 per cord compared to \$35.95 per cord in 2018, a year-over-year price decrease of \$2.81 per cord or 7.8 percent. In 2019, the average public agencies black spruce cord products stumpage price was \$24.18 per cord compared to \$24.29 per cord in 2018, a year-over-year price decrease of \$0.11 per cord or 0.5 percent (Figure 3, Table 2, page 6).

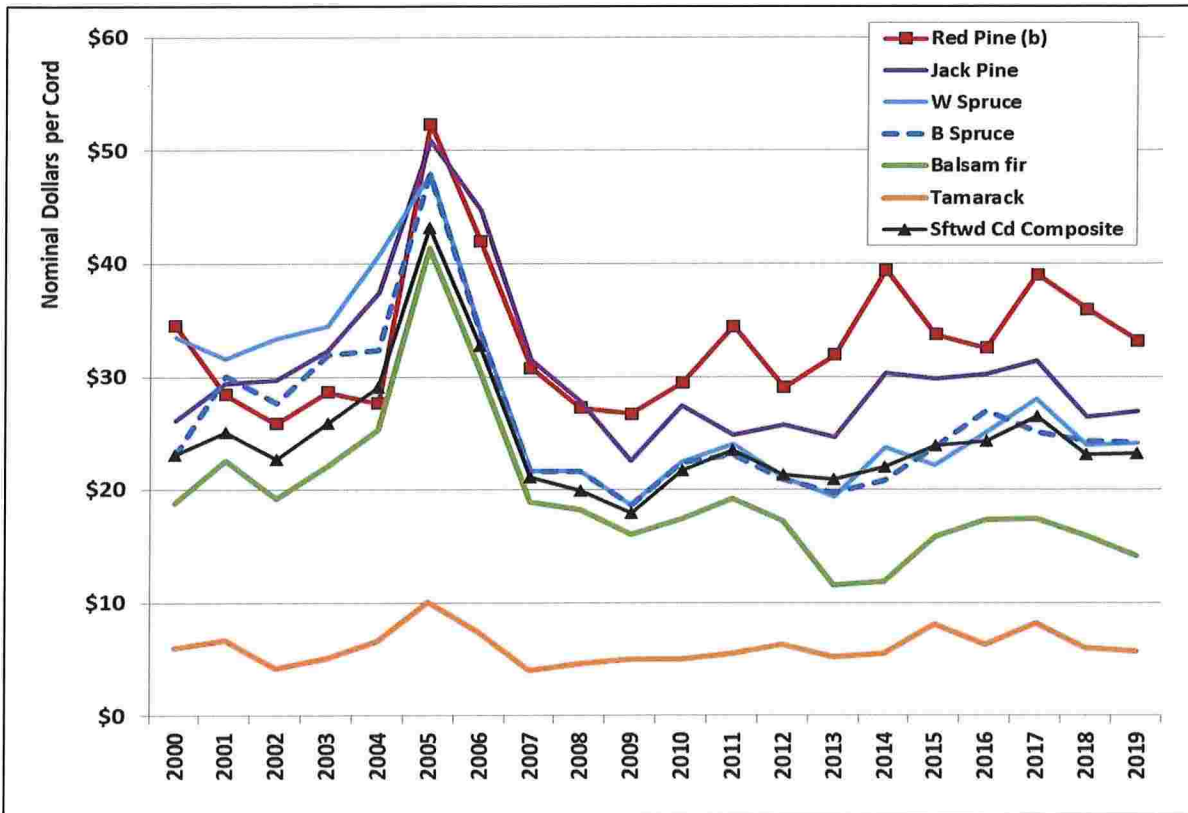


Figure 3: Softwood cord product prices by species group, 2010-2019. (a)

a) Product categories: pulp & bolts and pulpwood only.

b) Includes white pine through 2010.

- In 2019, the average stumpage price received by public agencies for all-species sawtimber increased to \$144.87 per Mbf compared to \$134.00 per Mbf in 2018, a year-over-year price increase of \$10.87 per Mbf or 8.1 percent. In 2019, the average price of red pine sawtimber decreased to \$143.27 per Mbf compared to \$144.41 per Mbf in 2018, a price decrease of \$1.14 per Mbf or 0.8 percent. In 2019, the average price of oak sawtimber increased to \$213.20 compared to \$194.63 in 2018, a price increase of \$18.57 per Mbf or 9.5 percent (Figure 4, Table 3, page 7).

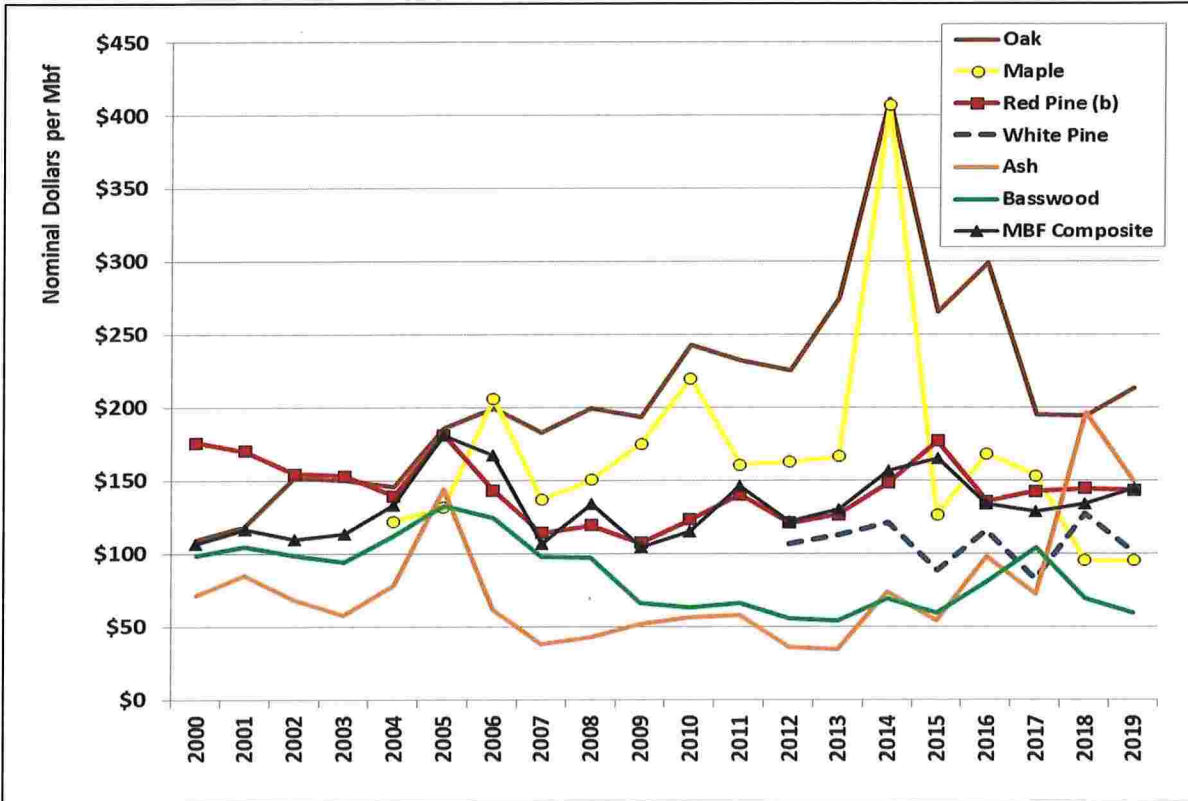


Figure 4: Sawtimber stumpage prices by species group, 2010-2019. (a)

a) Sawtimber units of measure include both Scribner log rule and cords converted to thousand board feet (Mbf) at two cords per Mbf.

b) Includes white pine through 2011.

Inflation Adjusted Stumpage Price Indices

The Implicit Price Deflator for Gross Domestic Product (GDP) is baseline inflation (all indices base year 2000=100). In 2019, the Inflation Index increased to 143.9, a 1.7 percent increase year-over-year. In 2019, the all-agencies Aspen Cord Price Index decreased 11.3 percent year-over-year to 103.4. The Black Spruce Cord Price Index decreased 0.5 percent year-over-year to 104.9. The Red Pine Mbf Price Index decreased 0.8 percent year-over-year to 81.4. The Mbf Composite Price Index increased 8.1 percent year-over-year to 135.4 (Figure 5, Table 1).

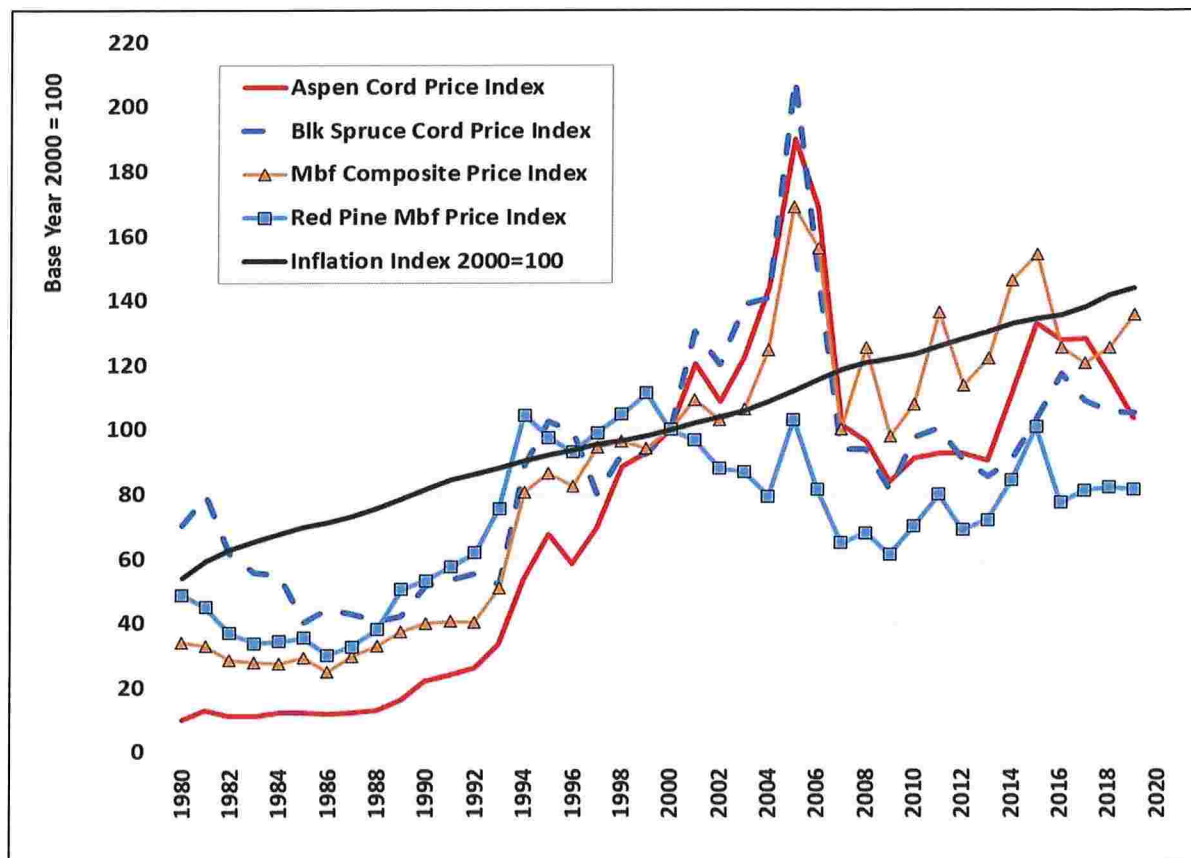


Figure 5: Inflation adjusted public agencies stumpage price indices, 1980-2019.

Table 1: Public stumpage price indices and inflation, base year 2000 = 100.

| Price Index | 2015 | 2016 | 2017 | 2018 | 2019 | Y/Y Δ | Y/Y Δ% |
|-------------------------------|-------|-------|-------|-------|-------|--------|--------|
| Aspen Cord Price Index | 132.7 | 127.6 | 128.0 | 116.6 | 103.4 | (13.2) | -11.3% |
| Black Spruce Cord Price Index | 103.3 | 117.3 | 108.7 | 105.4 | 104.9 | (0.5) | -0.5% |
| Red Pine Mbf Price Index | 100.7 | 77.2 | 81.1 | 82.0 | 81.4 | (0.6) | -0.8% |
| Mbf Composite Price Index | 154.3 | 125.2 | 120.4 | 125.2 | 135.4 | 10.2 | 8.1% |
| Inflation Index | 134.1 | 135.5 | 138.1 | 141.4 | 143.9 | 2.5 | 1.7% |

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Historical Prices

Table 2: Statewide average prices received for stumpage sold in cords by public agencies in Minnesota, 10-year history.

| Cord Products (Nominal \$/Cord) (a) | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 19/18 Δ\$YoY | 19/18 Δ%YoY |
|--|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------------------|------------------------|
| Ash | \$8.60 | \$7.92 | \$10.02 | \$8.66 | \$8.51 | \$10.88 | \$9.81 | \$9.98 | \$9.68 | \$8.92 | (\$0.76) | -7.9% |
| Aspen | \$25.16 | \$25.55 | \$25.59 | \$24.99 | \$30.80 | \$36.64 | \$35.23 | \$35.36 | \$32.20 | \$28.55 | (\$3.65) | -11.3% |
| Balm | \$21.22 | \$20.01 | \$22.77 | \$20.56 | \$24.80 | \$27.68 | \$27.46 | \$30.56 | \$25.55 | \$25.59 | \$0.04 | 0.2% |
| Birch | \$10.37 | \$11.06 | \$10.54 | \$10.18 | \$13.00 | \$15.60 | \$15.53 | \$15.92 | \$12.66 | \$13.11 | \$0.45 | 3.6% |
| Oak | \$19.51 | \$18.14 | \$19.38 | \$20.89 | \$22.68 | \$26.06 | \$30.76 | \$27.62 | \$26.82 | \$24.50 | (\$2.32) | -8.7% |
| Basswood | \$10.45 | \$9.15 | \$9.79 | \$11.13 | \$10.30 | \$14.19 | \$14.78 | \$14.18 | \$12.19 | \$10.86 | (\$1.33) | -10.9% |
| Maple | \$9.36 | \$9.71 | \$9.27 | \$11.10 | \$11.72 | \$13.50 | \$14.26 | \$12.57 | \$12.34 | \$11.76 | (\$0.58) | -4.7% |
| Mixed/Other Hdws | \$12.29 | \$11.84 | \$12.23 | \$10.71 | \$13.90 | \$14.08 | \$16.58 | \$16.34 | \$12.40 | \$12.53 | \$0.13 | 1.0% |
| Balsam fir | \$17.38 | \$19.25 | \$17.25 | \$11.54 | \$11.83 | \$15.84 | \$17.33 | \$17.39 | \$15.94 | \$14.12 | (\$1.82) | -11.4% |
| W Spruce | \$22.43 | \$24.08 | \$21.01 | \$19.41 | \$23.78 | \$22.12 | \$24.99 | \$27.97 | \$23.90 | \$24.14 | \$0.24 | 1.0% |
| B Spruce | \$22.43 | \$23.14 | \$20.87 | \$19.68 | \$20.84 | \$23.79 | \$27.02 | \$25.05 | \$24.29 | \$24.18 | (\$0.11) | -0.5% |
| Tamarack | \$5.03 | \$5.51 | \$6.30 | \$5.17 | \$5.54 | \$8.09 | \$6.26 | \$8.17 | \$5.98 | \$5.73 | (\$0.25) | -4.2% |
| Cedar | \$6.19 | \$8.21 | \$5.12 | \$7.86 | \$6.34 | \$6.41 | \$6.85 | \$6.56 | \$7.87 | \$7.36 | (\$0.51) | -6.5% |
| Jack Pine | \$27.42 | \$24.85 | \$25.75 | \$24.67 | \$30.31 | \$29.85 | \$30.24 | \$31.36 | \$26.43 | \$26.95 | \$0.52 | 2.0% |
| Red Pine (b) | \$29.42 | \$34.45 | \$29.02 | \$31.93 | \$39.42 | \$33.71 | \$32.52 | \$39.03 | \$35.95 | \$33.14 | (\$2.81) | -7.8% |
| White Pine | | \$31.42 | \$21.74 | \$30.06 | \$23.23 | \$38.66 | \$27.02 | \$16.64 | \$17.44 | \$27.03 | \$9.59 | 55.0% |
| Hdwd Cd Composite | \$21.28 | \$21.36 | \$21.81 | \$21.37 | \$25.77 | \$30.17 | \$29.91 | \$29.99 | \$27.27 | \$24.40 | (\$2.87) | -10.5% |
| Sftwd Cd Composite | \$21.73 | \$23.48 | \$21.31 | \$20.89 | \$22.03 | \$23.84 | \$24.33 | \$26.45 | \$23.07 | \$23.21 | \$0.14 | 0.6% |

a) Combined pulpwood and pulp & bolts products.

b) Includes white pine through 2010.

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Table 3: Statewide average prices received for sawtimber stumpage sold by public agencies in Minnesota, 10-year history.

| Sawtimber Products (Nominal \$/Mbf) (a) | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 19/18 Δ\$YoY | 19/18 Δ%YoY |
|--|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------------------|------------------------|
| Ash | \$56.27 | \$58.09 | \$36.12 | \$34.06 | \$73.41 | \$54.17 | \$97.67 | \$72.20 | \$196.37 | \$149.81 | (\$46.56) | -23.7% |
| Aspen | | | | | | | | | | | | |
| Birch | \$38.92 | \$42.15 | \$35.70 | \$36.97 | \$47.04 | \$42.84 | \$45.24 | \$43.00 | \$61.23 | \$53.33 | (\$7.90) | -12.9% |
| Elm | \$45.08 | \$60.43 | \$42.45 | \$41.41 | \$42.19 | \$42.50 | \$42.54 | \$39.77 | \$54.75 | \$54.07 | (\$0.68) | -1.2% |
| Oak | \$243.09 | \$232.20 | \$225.36 | \$274.54 | \$411.34 | \$265.54 | \$299.03 | \$195.16 | \$194.63 | \$213.20 | \$18.57 | 9.5% |
| Basswood | \$63.47 | \$66.11 | \$55.87 | \$54.44 | \$68.87 | \$59.24 | \$80.40 | \$104.38 | \$69.55 | \$59.18 | (\$10.37) | -14.9% |
| Maple | \$219.83 | \$160.78 | \$162.50 | \$166.65 | \$406.70 | \$126.70 | \$168.50 | \$153.04 | \$95.21 | \$95.21 | \$0.00 | 0.0% |
| Mixed/Other Hdwds | \$29.80 | \$48.31 | \$36.88 | \$28.56 | \$65.40 | \$47.87 | \$47.04 | \$50.28 | \$47.30 | \$78.78 | \$31.48 | 66.6% |
| Balsam fir | | | | \$66.51 | | | | | | | | |
| W Spruce | \$102.15 | \$64.23 | \$83.12 | \$87.57 | \$61.12 | \$74.68 | \$73.59 | \$67.58 | \$76.14 | \$83.77 | \$7.63 | 10.0% |
| Cedar | | | | | | | | | | | | |
| Jack Pine | \$105.00 | \$145.76 | \$138.95 | \$112.00 | \$89.56 | \$105.00 | \$118.77 | \$139.76 | \$109.56 | \$109.34 | (\$0.22) | -0.2% |
| Red Pine (b) | \$123.36 | \$140.46 | \$121.15 | \$126.48 | \$148.33 | \$177.16 | \$135.87 | \$142.72 | \$144.41 | \$143.27 | (\$1.14) | -0.8% |
| White Pine | | | \$106.66 | \$112.79 | \$121.29 | \$88.92 | \$116.02 | \$82.28 | \$127.44 | \$100.32 | (\$27.12) | -21.3% |
| MBF Composite | \$115.16 | \$145.88 | \$121.59 | \$130.39 | \$156.53 | \$165.13 | \$133.99 | \$128.87 | \$134.00 | \$144.87 | \$10.87 | 8.1% |

a) Scribner scale.

b) Includes white pine through 2011.

Historical Sales Values

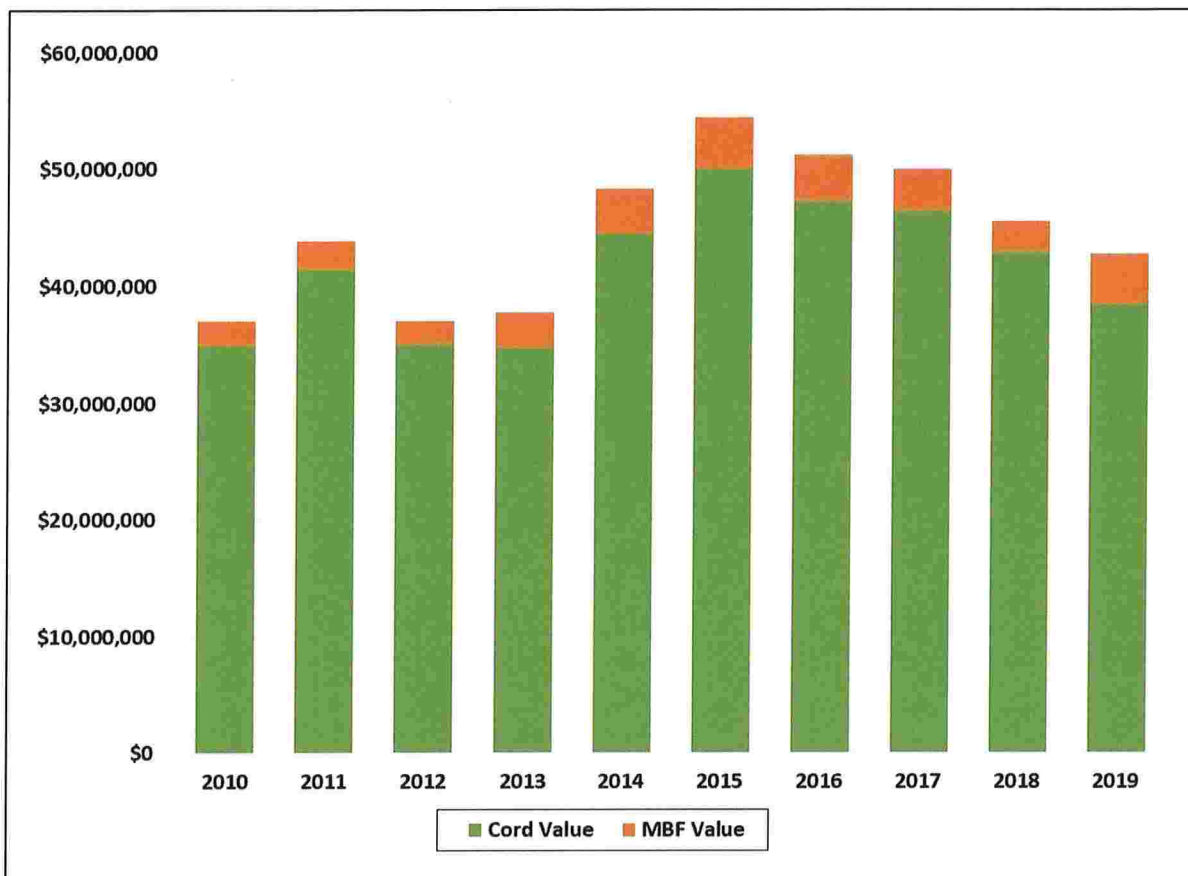


Figure 6: Minnesota public agencies value of cord and sawtimber products sold, 2010-2019. (a)
 a) Product categories: sawtimber, pulp & bolts, and pulpwood.

Table 4: Minnesota public agencies stumpage value sold, 2010-2019.

| Year | Cord Value | MBF Value | Total Value | Δ\$ YoY | Δ% YoY |
|------|--------------|-------------|--------------|---------------|--------|
| 2010 | \$34,986,480 | \$2,017,522 | \$37,004,002 | --- | --- |
| 2011 | \$41,490,200 | \$2,394,396 | \$43,884,596 | \$6,880,593 | 18.6% |
| 2012 | \$35,047,126 | \$1,952,204 | \$36,999,330 | (\$6,885,266) | -15.7% |
| 2013 | \$34,731,261 | \$3,002,852 | \$37,734,113 | \$734,783 | 2.0% |
| 2014 | \$44,457,180 | \$3,887,081 | \$48,344,261 | \$10,610,148 | 28.1% |
| 2015 | \$50,112,024 | \$4,369,446 | \$54,481,471 | \$6,137,210 | 12.7% |
| 2016 | \$47,327,421 | \$3,898,130 | \$51,225,551 | (\$3,255,920) | -6.0% |
| 2017 | \$46,464,399 | \$3,479,238 | \$49,943,637 | (\$1,281,915) | -2.5% |
| 2018 | \$42,903,113 | \$2,624,607 | \$45,527,720 | (\$4,415,916) | -8.8% |
| 2019 | \$38,490,782 | \$4,220,263 | \$42,711,044 | (\$2,816,676) | -6.2% |

Historical Sales Volumes

In 2019, Minnesota public agencies sold 1,659,817 cord equivalents of sawtimber, pulp & bolts, and pulpwood compared to sales of 1,682,741 cord equivalents in 2018, a sales volume decrease of 22,925 cord equivalents or 1.4 percent year-over-year (Figure 7, Table 5, page 10). In 2019, aspen/balm of Gilead sold volume decreased to 800,258 cords from 869,353 cords in 2018, a 69,095-cord or 7.9 percent decrease year-over-year. In 2019, pine volume sold increased to 237,315 cord equivalents from 178,919 cord equivalents in 2018, a 58,396-cord or 32.6 percent increase. In 2019, spruce volume sold increased to 168,165 cords from 156,359 cords in 2018, an 11,806-cord or 7.6 percent increase.

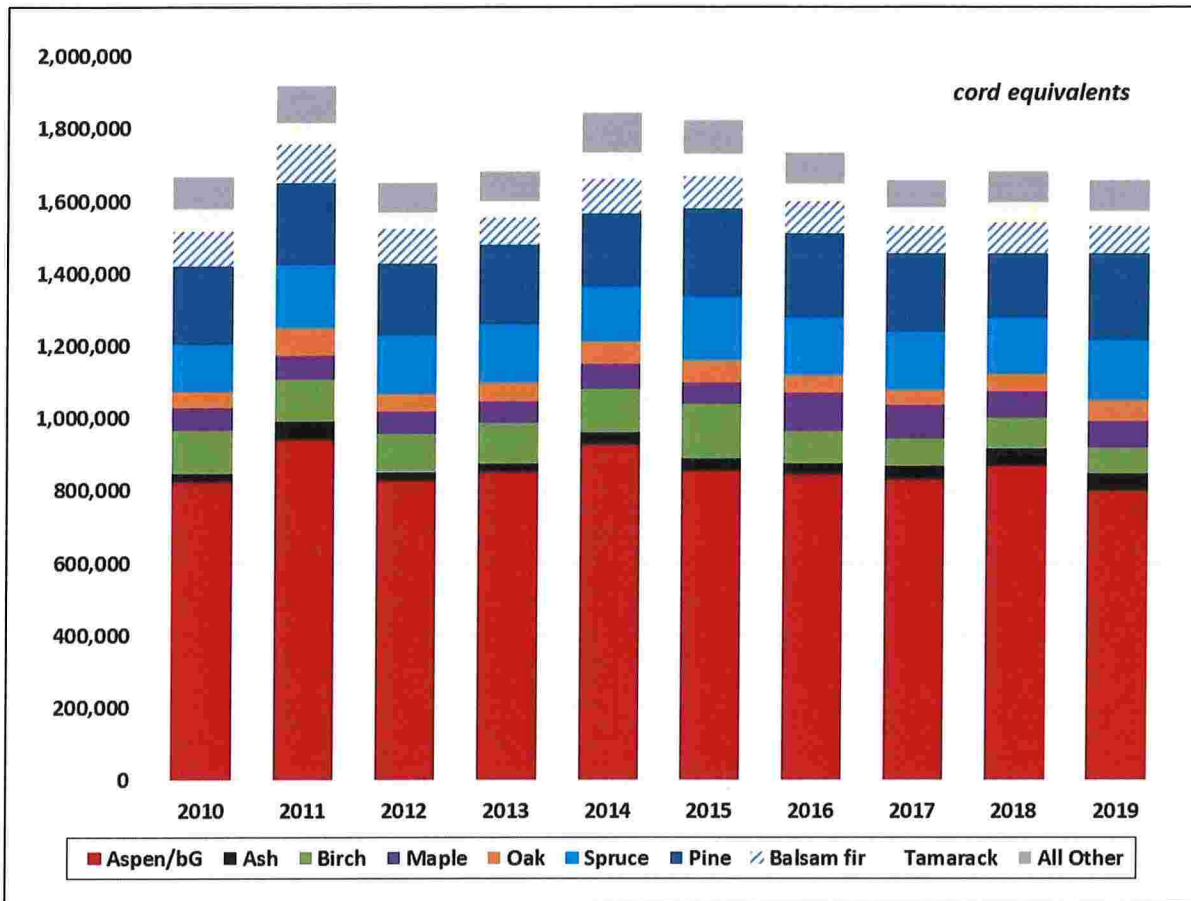


Figure 7: All public agencies volume sold by species group, 2010-2019. (a)
 a) Product categories: sawtimber, pulp & bolts, and pulpwood.

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Table 5: Minnesota public agencies volume sold by species group in cord equivalents, 2010-2019. (a)

| Year | Aspen/bG | Ash | Birch | Maple | Oak | Spruce | Pine | Balsam fir | Tamarack | All Other | Total Sold |
|-----------------|-----------------|--------------|-----------------|--------------|---------------|---------------|---------------|----------------|-----------------|--------------|-----------------|
| 2010 | 824,135 | 24,988 | 119,494 | 59,575 | 44,530 | 130,870 | 216,865 | 98,517 | 60,380 | 89,861 | 1,669,214 |
| 2011 | 940,669 | 50,223 | 119,533 | 63,752 | 74,256 | 176,260 | 227,487 | 106,658 | 58,118 | 104,144 | 1,921,100 |
| 2012 | 826,340 | 24,979 | 107,629 | 60,741 | 48,525 | 160,322 | 199,581 | 97,256 | 43,303 | 81,381 | 1,650,055 |
| 2013 | 849,626 | 25,730 | 114,661 | 55,874 | 51,912 | 160,644 | 220,209 | 75,940 | 45,471 | 81,498 | 1,681,563 |
| 2014 | 927,010 | 32,801 | 122,493 | 67,117 | 62,050 | 152,298 | 202,962 | 95,889 | 71,717 | 110,434 | 1,844,771 |
| 2015 | 855,460 | 32,223 | 153,171 | 59,020 | 59,129 | 174,975 | 247,082 | 88,934 | 59,133 | 95,955 | 1,825,081 |
| 2016 | 845,524 | 30,523 | 89,247 | 105,016 | 47,710 | 159,245 | 234,485 | 89,715 | 47,926 | 83,316 | 1,732,707 |
| 2017 | 830,713 | 38,434 | 75,171 | 90,992 | 44,143 | 158,623 | 217,267 | 77,439 | 50,127 | 74,922 | 1,657,831 |
| 2018 | 869,353 | 45,762 | 88,672 | 72,080 | 44,965 | 156,359 | 178,919 | 84,440 | 56,198 | 85,993 | 1,682,741 |
| 2019 | 800,258 | 47,100 | 73,902 | 71,450 | 56,122 | 168,165 | 237,315 | 76,970 | 40,868 | 87,666 | 1,659,817 |
| 19/18 Δ | (69,095) | 1,339 | (14,771) | (630) | 11,156 | 11,806 | 58,396 | (7,469) | (15,330) | 1,673 | (22,925) |
| 19/18 Δ% | -7.9% | 2.9% | -16.7% | -0.9% | 24.8% | 7.6% | 32.6% | -8.8% | -27.3% | 1.9% | -1.4% |

a) Product categories: sawtimber, pulp & bolts, and pulpwood.

Data and Methods

This report presents average stumpage prices received by all Minnesota public agencies for the following product classifications: sawtimber, pulp & bolts, pulpwood, fuelwood, and biomass. All data are self-reported by individual agency representatives facilitated by a DNR-led survey. Price and volume data and summary analyses presented in this report may be useful for determining the total volume and value of stumpage sold and for comparing relative volumes and values of stumpage sold over time.

DISCLAIMER—Public agencies follow different fiscal years and there is some variability in product specifications, e.g. sawtimber, pulp & bolts, pulpwood, fuelwood, and biomass.

The reporting period for each agency is included as part of the agencies information. The fiscal year used by the counties is the same as the calendar year. The state's (Minnesota DNR Forestry) fiscal year runs from July 1 to June 30, but, to make the data reported more consistent with the other agencies, the timeframe for state data included in the report is for **CY2019**. Federal agencies (USFS and BIA) fiscal year runs from October 1 – September 30.

Federal agencies softwood sawtimber specifications include bolts to a six-inch top dib and hardwood bolts to an eight-inch top dib. Virtually all other agencies report pulp and bolts as a standalone product category for species that are frequently purchased by sawmills. Self-reported product category volumes and values are “normalized”, at the discretion of the state forest economist, to account for variability in self-reported product specifications. In addition, some agencies report their data based on timber appraisal estimates from timber sales sold, while others report based on actual scale receipts from timber harvested and scaled. The reporting basis for each agency is noted in the report.

The reader should use caution when comparing the prices shown in this report with actual prices received or expected on a specific timber sale. Individual sale prices may vary significantly (± 30 percent or more) from the averages shown in this report due to variability in local markets, road access costs, haul distance, sale/site specific conditions, and operational constraints.

Definitions

Average price—volume weighted average, equals total value divided by total volume for each listed species group and product classification.

Biomass—dead trees and logging residues including tops, limbs, and cull reported in green tons.

Board foot—a piece of wood 1” thick by 12” long by 12” wide.

Bolt—short length log, in the Lake States usually 100” in length with minimum 6” top dib. Depending on species and quality, may be suitable for the production of dimensional lumber (2x4s), industrial grade lumber (pallets), for manufacturing turned forest products, or for peeling.

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Inflation Index—base year 2000=100, indexed to general price changes as measured by the Implicit Price Deflator for Gross Domestic Product (GDP) compiled by the U.S. Department of Commerce, Bureau of Economic Analysis.

Cord (Standard)—cubic volume measure 4-feet wide by 4-feet high by 8-feet in length, or equivalent containing 128 cubic feet of well stacked roundwood, including bark and air space, with an average of 79 cubic feet of solid wood. By state statute, fuelwood is measured in standard cords.

Cord (100-inch)—cubic volume measure 4-feet wide by 4-feet high by 8.3-feet (100-inch) in length, or equivalent containing 133.3 cubic feet of well stacked roundwood, including bark and air space, with an average of 82.3 cubic feet solid wood. In Minnesota, the vast majority of cord products are cut to 100-inch.

Mbf—one thousand board feet; stumpage volume measured using Scribner log or tree scale.

Mbf Composite Price Index—base year 2000=100, volume weighted (total all-species MBF value divided by total all-species MBF volume) sawtimber price index.

MMbf—one million board feet; stumpage volume measured using Scribner log or tree scale.

Pulpwood—stem suitable for fiber used for paper and oriented strand board (OSB) manufacturing.

Pulp & Bolts—stem containing the mixed products of pulpwood and bolts.

Sawtimber—stem suitable for production of graded boards and/or dimension lumber.

Stumpage—value paid to a landowner to harvest standing timber.

Contact

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The following tables were produced using Microsoft Access reporting tools.

2019 All Public Agencies Summary

| All Agencies | | | | | | | | | | | |
|-----------------------------------|------------------|------------------|-----------------------|------------------|--------------------|------------------|-----------------|------------------|-----------------|------------------|--|
| Reporting Period: Multiple | | | | | | | | | | | |
| Reporting Basis: Multiple | | | | | | | | | | | |
| <u>Species Name</u> | <u>Sawtimber</u> | | <u>Pulp and Bolts</u> | | <u>Pulpwood</u> | | <u>Fuelwood</u> | | <u>Biomass</u> | | |
| | <u>MBF</u> | <u>Avg Price</u> | <u>Cords</u> | <u>Avg Price</u> | <u>Cords</u> | <u>Avg Price</u> | <u>Cords</u> | <u>Avg Price</u> | <u>Tons</u> | <u>Avg Price</u> | |
| Aspen | 68.7 | \$72.00 | 0.0 | \$0.00 | 795,316.4 | \$28.55 | 5.0 | \$3.00 | 0.0 | \$0.00 | |
| Balm of Gilead | 0.0 | \$0.00 | 0.0 | \$0.00 | 4,804.2 | \$25.59 | 0.0 | \$0.00 | 0.0 | \$0.00 | |
| Birch Species | 0.3 | \$53.33 | 32,460.4 | \$16.90 | 41,440.8 | \$10.14 | 36.0 | \$5.30 | 0.0 | \$0.00 | |
| Ash Species | 157.8 | \$149.81 | 28,637.9 | \$10.56 | 18,146.9 | \$6.32 | 466.3 | \$3.13 | 0.0 | \$0.00 | |
| Elm Species | 22.7 | \$54.07 | 0.5 | \$16.20 | 97.6 | \$5.77 | 0.0 | \$0.00 | 0.0 | \$0.00 | |
| Oak Species | 1,724.3 | \$213.20 | 36,863.1 | \$27.63 | 15,810.1 | \$17.19 | 632.3 | \$8.03 | 0.0 | \$0.00 | |
| Basswood | 392.7 | \$59.18 | 21,603.5 | \$11.84 | 7,790.9 | \$8.17 | 0.0 | \$0.00 | 0.0 | \$0.00 | |
| Mixed/Other Hdwds | 79.8 | \$78.78 | 25,373.9 | \$14.38 | 12,861.4 | \$8.90 | 789.0 | \$4.52 | 0.0 | \$0.00 | |
| Balsam fir | 0.0 | \$0.00 | 8,101.6 | \$21.19 | 68,868.7 | \$13.28 | 0.0 | \$0.00 | 0.0 | \$0.00 | |
| White Spruce | 18.6 | \$83.77 | 49,340.4 | \$27.22 | 35,669.7 | \$19.88 | 5.0 | \$1.00 | 0.0 | \$0.00 | |
| Black Spruce | 0.0 | \$0.00 | 12,305.6 | \$27.82 | 70,811.8 | \$23.55 | 21.3 | \$8.00 | 0.0 | \$0.00 | |
| Tamarack | 0.0 | \$0.00 | 6,058.7 | \$7.90 | 34,809.3 | \$5.35 | 1,971.0 | \$2.65 | 0.0 | \$0.00 | |
| White Cedar | 0.0 | \$0.00 | 1,522.2 | \$9.18 | 1,157.5 | \$4.97 | 1.0 | \$2.50 | 0.0 | \$0.00 | |
| Jack Pine | 5.0 | \$109.34 | 33,801.2 | \$27.73 | 3,463.4 | \$19.32 | 477.0 | \$2.99 | 0.0 | \$0.00 | |
| Red Pine | 25,996.5 | \$143.27 | 119,207.3 | \$38.64 | 24,922.8 | \$6.85 | 84.4 | \$2.19 | 0.0 | \$0.00 | |
| White Pine | 665.4 | \$100.32 | 2,187.7 | \$30.16 | 399.2 | \$9.87 | 0.0 | \$0.00 | 0.0 | \$0.00 | |
| Maple Species | 0.0 | \$0.00 | 17,029.5 | \$16.78 | 54,420.6 | \$10.19 | 112.0 | \$6.76 | 0.0 | \$0.00 | |
| Mixed Species | 0.0 | \$0.00 | 320.0 | \$21.89 | 15,948.5 | \$5.35 | 2,099.7 | \$4.26 | 41,783.5 | \$1.28 | |
| All Agencies All Species | 29,131.8 | \$144.87 | 394,813.5 | \$26.12 | 1,206,739.8 | \$23.35 | 6,700.0 | \$4.04 | 41,783.5 | \$1.28 | |

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Average Sale Prices Reported by Agency

MINNESOTA COUNTIES 2019

Agency Name: Aitkin Co.

Reporting Period: 01/19 to 12/19

Reporting Basis: Appraisal Reports

| <u>Species Name</u> | Sawtimber | | Pulp and Bolts | | Pulpwood | | Fuelwood | | Biomass | |
|-------------------------------|------------------|------------------|-----------------------|------------------|-----------------|------------------|-----------------|------------------|----------------|------------------|
| | <u>MBF</u> | <u>Avg Price</u> | <u>Cords</u> | <u>Avg Price</u> | <u>Cords</u> | <u>Avg Price</u> | <u>Cords</u> | <u>Avg Price</u> | <u>Tons</u> | <u>Avg Price</u> |
| Aspen | 0.0 | \$0.00 | 0.0 | \$0.00 | 21,540.0 | \$29.99 | 0.0 | \$0.00 | 0.0 | \$0.00 |
| Balm of Gilead | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 |
| Birch Species | 0.0 | \$0.00 | 2,673.0 | \$12.05 | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 |
| Ash Species | 0.0 | \$0.00 | 2,347.0 | \$11.68 | 0.0 | \$0.00 | 50.0 | \$8.00 | 0.0 | \$0.00 |
| Elm Species | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 |
| Oak Species | 103.0 | \$85.86 | 0.0 | \$0.00 | 3,258.0 | \$14.28 | 476.0 | \$8.32 | 0.0 | \$0.00 |
| Basswood | 35.5 | \$43.65 | 1,677.0 | \$11.63 | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 |
| Mixed/Other Hdwds | 6.5 | \$55.00 | 3,170.0 | \$12.11 | 893.0 | \$9.80 | 262.0 | \$7.45 | 0.0 | \$0.00 |
| Balsam fir | 0.0 | \$0.00 | 111.0 | \$25.85 | 537.0 | \$21.49 | 0.0 | \$0.00 | 0.0 | \$0.00 |
| White Spruce | 0.0 | \$0.00 | 234.0 | \$26.83 | 40.0 | \$22.48 | 0.0 | \$0.00 | 0.0 | \$0.00 |
| Black Spruce | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 |
| Tamarack | 0.0 | \$0.00 | 0.0 | \$0.00 | 565.0 | \$6.00 | 0.0 | \$0.00 | 0.0 | \$0.00 |
| White Cedar | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 |
| Jack Pine | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 |
| Red Pine | 2.5 | \$100.00 | 2,326.0 | \$41.27 | 18.0 | \$20.00 | 0.0 | \$0.00 | 0.0 | \$0.00 |
| White Pine | 0.0 | \$0.00 | 51.6 | \$27.71 | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 |
| Maple Species | 0.0 | \$0.00 | 0.0 | \$0.00 | 4,918.0 | \$11.15 | 0.0 | \$0.00 | 0.0 | \$0.00 |
| Mixed Species | 0.0 | \$0.00 | 320.0 | \$21.89 | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 |
| Aitkin Co. All Species | 147.5 | \$74.58 | 12,909.6 | \$17.90 | 31,769.0 | \$24.31 | 788.0 | \$8.01 | 0.0 | \$0.00 |

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Agency Name: Becker Co.

Reporting Period: 01/19 to 12/19

Reporting Basis: Appraisal Reports

| <u>Species Name</u> | <u>Sawtimber</u> | | <u>Pulp and Bolts</u> | | <u>Pulpwood</u> | | <u>Fuelwood</u> | | <u>Biomass</u> | |
|-------------------------------|------------------|------------------|-----------------------|------------------|-----------------|------------------|-----------------|------------------|----------------|------------------|
| | <u>MBF</u> | <u>Avg Price</u> | <u>Cords</u> | <u>Avg Price</u> | <u>Cords</u> | <u>Avg Price</u> | <u>Cords</u> | <u>Avg Price</u> | <u>Tons</u> | <u>Avg Price</u> |
| Aspen | 0.0 | \$0.00 | 0.0 | \$0.00 | 5,415.0 | \$32.39 | 0.0 | \$0.00 | 0.0 | \$0.00 |
| Balm of Gilead | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 |
| Birch Species | 0.0 | \$0.00 | 1,037.0 | \$16.70 | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 |
| Ash Species | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 |
| Elm Species | 0.0 | \$0.00 | 0.0 | \$0.00 | 10.0 | \$4.96 | 0.0 | \$0.00 | 0.0 | \$0.00 |
| Oak Species | 0.0 | \$0.00 | 495.0 | \$23.47 | 12.0 | \$19.20 | 0.0 | \$0.00 | 0.0 | \$0.00 |
| Basswood | 0.0 | \$0.00 | 120.0 | \$11.16 | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 |
| Mixed/Other Hdwds | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 |
| Balsam fir | 0.0 | \$0.00 | 0.0 | \$0.00 | 70.0 | \$13.93 | 0.0 | \$0.00 | 0.0 | \$0.00 |
| White Spruce | 0.0 | \$0.00 | 0.0 | \$0.00 | 50.0 | \$16.60 | 0.0 | \$0.00 | 0.0 | \$0.00 |
| Black Spruce | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 |
| Tamarack | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 |
| White Cedar | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 |
| Jack Pine | 0.0 | \$0.00 | 1,455.0 | \$21.01 | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 |
| Red Pine | 0.0 | \$0.00 | 243.0 | \$50.35 | 107.0 | \$13.19 | 0.0 | \$0.00 | 0.0 | \$0.00 |
| White Pine | 0.0 | \$0.00 | 15.0 | \$17.47 | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 |
| Maple Species | 0.0 | \$0.00 | 40.0 | \$15.85 | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 |
| Mixed Species | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 | 355.0 | \$6.69 | 0.0 | \$0.00 |
| Becker Co. All Species | 0.0 | \$0.00 | 3,405.0 | \$21.72 | 5,664.0 | \$31.59 | 355.0 | \$6.69 | 0.0 | \$0.00 |

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Agency Name: Beltrami Co.

Reporting Period: 01/19 to 12/19

Reporting Basis: Appraisal Reports

| <u>Species Name</u> | <u>Sawtimber</u> | | <u>Pulp and Bolts</u> | | <u>Pulpwood</u> | | <u>Fuelwood</u> | | <u>Biomass</u> | |
|---------------------------------|------------------|------------------|-----------------------|------------------|-----------------|------------------|-----------------|------------------|----------------|------------------|
| | <u>MBF</u> | <u>Avg Price</u> | <u>Cords</u> | <u>Avg Price</u> | <u>Cords</u> | <u>Avg Price</u> | <u>Cords</u> | <u>Avg Price</u> | <u>Tons</u> | <u>Avg Price</u> |
| Aspen | 0.0 | \$0.00 | 0.0 | \$0.00 | 12,471.0 | \$32.33 | 5.0 | \$3.00 | 0.0 | \$0.00 |
| Balm of Gilead | 0.0 | \$0.00 | 0.0 | \$0.00 | 269.0 | \$36.90 | 0.0 | \$0.00 | 0.0 | \$0.00 |
| Birch Species | 0.0 | \$0.00 | 0.0 | \$0.00 | 958.0 | \$14.95 | 0.0 | \$0.00 | 0.0 | \$0.00 |
| Ash Species | 0.0 | \$0.00 | 0.0 | \$0.00 | 252.0 | \$9.83 | 0.0 | \$0.00 | 0.0 | \$0.00 |
| Elm Species | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 |
| Oak Species | 0.0 | \$0.00 | 0.0 | \$0.00 | 169.0 | \$14.46 | 0.0 | \$0.00 | 0.0 | \$0.00 |
| Basswood | 0.0 | \$0.00 | 1,160.0 | \$15.94 | 641.0 | \$9.73 | 0.0 | \$0.00 | 0.0 | \$0.00 |
| Mixed/Other Hdwds | 0.0 | \$0.00 | 0.0 | \$0.00 | 1,672.0 | \$11.17 | 430.0 | \$2.50 | 0.0 | \$0.00 |
| Balsam fir | 0.0 | \$0.00 | 423.0 | \$15.73 | 1,004.0 | \$10.66 | 0.0 | \$0.00 | 0.0 | \$0.00 |
| White Spruce | 0.0 | \$0.00 | 150.0 | \$18.01 | 17.0 | \$8.41 | 0.0 | \$0.00 | 0.0 | \$0.00 |
| Black Spruce | 0.0 | \$0.00 | 0.0 | \$0.00 | 536.0 | \$8.01 | 0.0 | \$0.00 | 0.0 | \$0.00 |
| Tamarack | 0.0 | \$0.00 | 0.0 | \$0.00 | 1,880.0 | \$2.57 | 0.0 | \$0.00 | 0.0 | \$0.00 |
| White Cedar | 0.0 | \$0.00 | 0.0 | \$0.00 | 74.0 | \$7.97 | 0.0 | \$0.00 | 0.0 | \$0.00 |
| Jack Pine | 0.0 | \$0.00 | 2,293.0 | \$34.15 | 781.0 | \$28.01 | 209.0 | \$4.00 | 0.0 | \$0.00 |
| Red Pine | 1,588.0 | \$145.63 | 1,414.0 | \$35.12 | 1,899.0 | \$10.35 | 0.0 | \$0.00 | 0.0 | \$0.00 |
| White Pine | 52.7 | \$117.50 | 0.0 | \$0.00 | 19.0 | \$9.53 | 0.0 | \$0.00 | 0.0 | \$0.00 |
| Maple Species | 0.0 | \$0.00 | 1,112.0 | \$15.70 | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 |
| Mixed Species | 0.0 | \$0.00 | 0.0 | \$0.00 | 488.0 | \$5.89 | 0.0 | \$0.00 | 0.0 | \$0.00 |
| Beltrami Co. All Species | 1,640.7 | \$144.73 | 6,552.0 | \$26.44 | 23,130.0 | \$22.59 | 644.0 | \$2.99 | 0.0 | \$0.00 |

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Agency Name: Carlton Co.

Reporting Period: 01/19 to 12/19

Reporting Basis: Appraisal Reports

| <u>Species Name</u> | <u>Sawtimber</u> | | <u>Pulp and Bolts</u> | | <u>Pulpwood</u> | | <u>Fuelwood</u> | | <u>Biomass</u> | |
|--------------------------------|------------------|------------------|-----------------------|------------------|-----------------|------------------|-----------------|------------------|----------------|------------------|
| | <u>MBF</u> | <u>Avg Price</u> | <u>Cords</u> | <u>Avg Price</u> | <u>Cords</u> | <u>Avg Price</u> | <u>Cords</u> | <u>Avg Price</u> | <u>Tons</u> | <u>Avg Price</u> |
| Aspen | 0.0 | \$0.00 | 0.0 | \$0.00 | 7,805.0 | \$26.07 | 0.0 | \$0.00 | 0.0 | \$0.00 |
| Balm of Gilead | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 |
| Birch Species | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 |
| Ash Species | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 |
| Elm Species | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 |
| Oak Species | 0.0 | \$0.00 | 210.0 | \$25.00 | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 |
| Basswood | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 |
| Mixed/Other Hdwds | 0.0 | \$0.00 | 3,410.0 | \$12.04 | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 |
| Balsam fir | 0.0 | \$0.00 | 0.0 | \$0.00 | 215.0 | \$10.35 | 0.0 | \$0.00 | 0.0 | \$0.00 |
| White Spruce | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 |
| Black Spruce | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 |
| Tamarack | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 |
| White Cedar | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 |
| Jack Pine | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 |
| Red Pine | 0.0 | \$0.00 | 423.0 | \$35.00 | 447.0 | \$2.35 | 0.0 | \$0.00 | 0.0 | \$0.00 |
| White Pine | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 |
| Maple Species | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 |
| Mixed Species | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 |
| Carlton Co. All Species | 0.0 | \$0.00 | 4,043.0 | \$15.11 | 8,467.0 | \$24.42 | 0.0 | \$0.00 | 0.0 | \$0.00 |

EXHIBIT A

**PUBLIC DOCUMENT
TRADE SECRET DATA HAS BEEN EXCISED**

Agency Name: Cass Co.

Reporting Period: 01/19 to 12/19

Reporting Basis: Appraisal Reports

| <u>Species Name</u> | <u>Sawtimber</u> | | <u>Pulp and Bolts</u> | | <u>Pulpwood</u> | | <u>Fuelwood</u> | | <u>Biomass</u> | |
|-----------------------------|------------------|------------------|-----------------------|------------------|-----------------|------------------|-----------------|------------------|----------------|------------------|
| | <u>MBF</u> | <u>Avg Price</u> | <u>Cords</u> | <u>Avg Price</u> | <u>Cords</u> | <u>Avg Price</u> | <u>Cords</u> | <u>Avg Price</u> | <u>Tons</u> | <u>Avg Price</u> |
| Aspen | 0.0 | \$0.00 | 0.0 | \$0.00 | 39,458.0 | \$34.25 | 0.0 | \$0.00 | 0.0 | \$0.00 |
| Balm of Gilead | 0.0 | \$0.00 | 0.0 | \$0.00 | 95.0 | \$8.00 | 0.0 | \$0.00 | 0.0 | \$0.00 |
| Birch Species | 0.0 | \$0.00 | 5,992.0 | \$19.16 | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 |
| Ash Species | 0.0 | \$0.00 | 2,168.0 | \$12.55 | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 |
| Elm Species | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 |
| Oak Species | 0.0 | \$0.00 | 12,590.0 | \$28.17 | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 |
| Basswood | 0.0 | \$0.00 | 2,403.0 | \$17.74 | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 |
| Mixed/Other Hdwds | 0.0 | \$0.00 | 80.0 | \$20.00 | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 |
| Balsam fir | 0.0 | \$0.00 | 0.0 | \$0.00 | 674.0 | \$12.53 | 0.0 | \$0.00 | 0.0 | \$0.00 |
| White Spruce | 0.0 | \$0.00 | 0.0 | \$0.00 | 158.0 | \$18.05 | 0.0 | \$0.00 | 0.0 | \$0.00 |
| Black Spruce | 0.0 | \$0.00 | 0.0 | \$0.00 | 1.0 | \$11.53 | 0.0 | \$0.00 | 0.0 | \$0.00 |
| Tamarack | 0.0 | \$0.00 | 0.0 | \$0.00 | 462.0 | \$4.58 | 0.0 | \$0.00 | 0.0 | \$0.00 |
| White Cedar | 0.0 | \$0.00 | 39.0 | \$14.99 | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 |
| Jack Pine | 0.0 | \$0.00 | 1,177.0 | \$30.49 | 1.0 | \$15.07 | 0.0 | \$0.00 | 0.0 | \$0.00 |
| Red Pine | 362.0 | \$118.12 | 1,864.5 | \$55.99 | 335.0 | \$25.87 | 0.0 | \$0.00 | 0.0 | \$0.00 |
| White Pine | 16.2 | \$110.25 | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 |
| Maple Species | 0.0 | \$0.00 | 4,039.0 | \$16.95 | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 |
| Mixed Species | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 | 240.0 | \$2.50 | 0.0 | \$0.00 |
| Cass Co. All Species | 378.2 | \$117.79 | 30,352.5 | \$24.72 | 41,184.0 | \$33.37 | 240.0 | \$2.50 | 0.0 | \$0.00 |

EXHIBIT A

**PUBLIC DOCUMENT
TRADE SECRET DATA HAS BEEN EXCISED**

Agency Name: Clearwater Co.

Reporting Period: 01/19 to 12/19

Reporting Basis: Appraisal Reports

| <u>Species Name</u> | <u>Sawtimber</u> | | <u>Pulp and Bolts</u> | | <u>Pulpwood</u> | | <u>Fuelwood</u> | | <u>Biomass</u> | |
|-----------------------------------|------------------|------------------|-----------------------|------------------|-----------------|------------------|-----------------|------------------|----------------|------------------|
| | <u>MBF</u> | <u>Avg Price</u> | <u>Cords</u> | <u>Avg Price</u> | <u>Cords</u> | <u>Avg Price</u> | <u>Cords</u> | <u>Avg Price</u> | <u>Tons</u> | <u>Avg Price</u> |
| Aspen | 0.0 | \$0.00 | 0.0 | \$0.00 | 6,513.0 | \$28.16 | 0.0 | \$0.00 | 0.0 | \$0.00 |
| Balm of Gilead | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 |
| Birch Species | 0.0 | \$0.00 | 10.0 | \$17.00 | 1,560.0 | \$11.82 | 0.0 | \$0.00 | 0.0 | \$0.00 |
| Ash Species | 4.1 | \$57.32 | 0.0 | \$0.00 | 45.0 | \$10.00 | 0.0 | \$0.00 | 0.0 | \$0.00 |
| Elm Species | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 |
| Oak Species | 253.2 | \$50.37 | 0.0 | \$0.00 | 2,685.0 | \$16.60 | 0.0 | \$0.00 | 0.0 | \$0.00 |
| Basswood | 224.3 | \$52.06 | 0.0 | \$0.00 | 2,280.0 | \$7.58 | 0.0 | \$0.00 | 0.0 | \$0.00 |
| Mixed/Other Hdwds | 0.0 | \$0.00 | 0.0 | \$0.00 | 478.0 | \$12.43 | 0.0 | \$0.00 | 0.0 | \$0.00 |
| Balsam fir | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 |
| White Spruce | 3.6 | \$80.00 | 0.0 | \$0.00 | 146.0 | \$7.00 | 0.0 | \$0.00 | 0.0 | \$0.00 |
| Black Spruce | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 |
| Tamarack | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 |
| White Cedar | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 |
| Jack Pine | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 |
| Red Pine | 356.4 | \$116.03 | 0.0 | \$0.00 | 94.0 | \$11.44 | 0.0 | \$0.00 | 0.0 | \$0.00 |
| White Pine | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 |
| Maple Species | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 |
| Mixed Species | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 |
| Clearwater Co. All Species | 841.6 | \$78.79 | 10.0 | \$17.00 | 13,801.0 | \$19.72 | 0.0 | \$0.00 | 0.0 | \$0.00 |

EXHIBIT A

**PUBLIC DOCUMENT
TRADE SECRET DATA HAS BEEN EXCISED**

Agency Name: Crow Wing Co.

Reporting Period: 01/19 to 12/19

Reporting Basis: Appraisal Reports

| Species Name | Sawtimber | | Pulp and Bolts | | Pulpwood | | Fuelwood | | Biomass | |
|----------------------------------|------------|---------------|----------------|----------------|-----------------|----------------|------------|---------------|----------------|---------------|
| | MBF | Avg Price | Cords | Avg Price | Cords | Avg Price | Cords | Avg Price | Tons | Avg Price |
| Aspen | 0.0 | \$0.00 | 0.0 | \$0.00 | 13,995.0 | \$32.37 | 0.0 | \$0.00 | 0.0 | \$0.00 |
| Balm of Gilead | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 |
| Birch Species | 0.0 | \$0.00 | 2,090.0 | \$17.89 | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 |
| Ash Species | 0.0 | \$0.00 | 285.0 | \$11.00 | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 |
| Elm Species | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 |
| Oak Species | 0.0 | \$0.00 | 0.0 | \$0.00 | 7,125.0 | \$18.83 | 0.0 | \$0.00 | 0.0 | \$0.00 |
| Basswood | 0.0 | \$0.00 | 1,025.0 | \$18.02 | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 |
| Mixed/Other Hdwds | 0.0 | \$0.00 | 0.0 | \$0.00 | 1,431.0 | \$10.13 | 0.0 | \$0.00 | 0.0 | \$0.00 |
| Balsam fir | 0.0 | \$0.00 | 0.0 | \$0.00 | 96.0 | \$15.00 | 0.0 | \$0.00 | 0.0 | \$0.00 |
| White Spruce | 0.0 | \$0.00 | 5.0 | \$25.00 | 5.0 | \$15.00 | 0.0 | \$0.00 | 0.0 | \$0.00 |
| Black Spruce | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 |
| Tamarack | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 |
| White Cedar | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 |
| Jack Pine | 0.0 | \$0.00 | 150.0 | \$29.40 | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 |
| Red Pine | 0.0 | \$0.00 | 3,527.0 | \$55.33 | 13.0 | \$12.00 | 0.0 | \$0.00 | 0.0 | \$0.00 |
| White Pine | 0.0 | \$0.00 | 145.0 | \$24.45 | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 |
| Maple Species | 0.0 | \$0.00 | 0.0 | \$0.00 | 1,513.0 | \$12.00 | 0.0 | \$0.00 | 0.0 | \$0.00 |
| Mixed Species | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 | 2,932.0 | \$1.00 |
| Crow Wing Co. All Species | 0.0 | \$0.00 | 7,227.0 | \$36.28 | 24,178.0 | \$25.70 | 0.0 | \$0.00 | 2,932.0 | \$1.00 |

EXHIBIT A

**PUBLIC DOCUMENT
TRADE SECRET DATA HAS BEEN EXCISED**

Agency Name: Hubbard Co.

Reporting Period: 01/19 to 12/19

Reporting Basis: Appraisal Reports

| <u>Species Name</u> | <u>Sawtimber</u> | | <u>Pulp and Bolts</u> | | <u>Pulpwood</u> | | <u>Fuelwood</u> | | <u>Biomass</u> | |
|--------------------------------|------------------|------------------|-----------------------|------------------|-----------------|------------------|-----------------|------------------|----------------|------------------|
| | <u>MBF</u> | <u>Avg Price</u> | <u>Cords</u> | <u>Avg Price</u> | <u>Cords</u> | <u>Avg Price</u> | <u>Cords</u> | <u>Avg Price</u> | <u>Tons</u> | <u>Avg Price</u> |
| Aspen | 0.0 | \$0.00 | 0.0 | \$0.00 | 27,713.0 | \$35.22 | 0.0 | \$0.00 | 0.0 | \$0.00 |
| Balm of Gilead | 0.0 | \$0.00 | 0.0 | \$0.00 | 35.0 | \$6.81 | 0.0 | \$0.00 | 0.0 | \$0.00 |
| Birch Species | 0.0 | \$0.00 | 0.0 | \$0.00 | 4,074.0 | \$11.42 | 0.0 | \$0.00 | 0.0 | \$0.00 |
| Ash Species | 0.0 | \$0.00 | 0.0 | \$0.00 | 125.0 | \$2.79 | 0.0 | \$0.00 | 0.0 | \$0.00 |
| Elm Species | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 |
| Oak Species | 0.0 | \$0.00 | 0.0 | \$0.00 | 239.0 | \$16.13 | 0.0 | \$0.00 | 0.0 | \$0.00 |
| Basswood | 0.0 | \$0.00 | 0.0 | \$0.00 | 935.0 | \$6.64 | 0.0 | \$0.00 | 0.0 | \$0.00 |
| Mixed/Other Hdwds | 0.0 | \$0.00 | 0.0 | \$0.00 | 65.0 | \$6.50 | 0.0 | \$0.00 | 0.0 | \$0.00 |
| Balsam fir | 0.0 | \$0.00 | 0.0 | \$0.00 | 205.0 | \$11.40 | 0.0 | \$0.00 | 0.0 | \$0.00 |
| White Spruce | 15.0 | \$84.67 | 180.0 | \$26.70 | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 |
| Black Spruce | 0.0 | \$0.00 | 0.0 | \$0.00 | 30.0 | \$16.50 | 0.0 | \$0.00 | 0.0 | \$0.00 |
| Tamarack | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 |
| White Cedar | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 |
| Jack Pine | 0.0 | \$0.00 | 1,345.0 | \$39.57 | 457.0 | \$13.82 | 0.0 | \$0.00 | 0.0 | \$0.00 |
| Red Pine | 0.0 | \$0.00 | 1,045.0 | \$34.52 | 1,240.0 | \$17.94 | 0.0 | \$0.00 | 0.0 | \$0.00 |
| White Pine | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 |
| Maple Species | 0.0 | \$0.00 | 0.0 | \$0.00 | 453.0 | \$7.19 | 0.0 | \$0.00 | 0.0 | \$0.00 |
| Mixed Species | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 |
| Hubbard Co. All Species | 15.0 | \$84.67 | 2,570.0 | \$36.61 | 35,571.0 | \$30.04 | 0.0 | \$0.00 | 0.0 | \$0.00 |

EXHIBIT A

**PUBLIC DOCUMENT
TRADE SECRET DATA HAS BEEN EXCISED**

Agency Name: Itasca Co.

Reporting Period: 01/19 to 12/19

Reporting Basis: Appraisal Reports

| <u>Species Name</u> | <u>Sawtimber</u> | | <u>Pulp and Bolts</u> | | <u>Pulpwood</u> | | <u>Fuelwood</u> | | <u>Biomass</u> | |
|-------------------------------|------------------|------------------|-----------------------|------------------|-----------------|------------------|-----------------|------------------|----------------|------------------|
| | <u>MBF</u> | <u>Avg Price</u> | <u>Cords</u> | <u>Avg Price</u> | <u>Cords</u> | <u>Avg Price</u> | <u>Cords</u> | <u>Avg Price</u> | <u>Tons</u> | <u>Avg Price</u> |
| Aspen | 0.0 | \$0.00 | 0.0 | \$0.00 | 52,392.0 | \$33.07 | 0.0 | \$0.00 | 0.0 | \$0.00 |
| Balm of Gilead | 0.0 | \$0.00 | 0.0 | \$0.00 | 519.0 | \$16.82 | 0.0 | \$0.00 | 0.0 | \$0.00 |
| Birch Species | 0.0 | \$0.00 | 0.0 | \$0.00 | 3,641.0 | \$11.97 | 0.0 | \$0.00 | 0.0 | \$0.00 |
| Ash Species | 0.0 | \$0.00 | 3,711.0 | \$10.51 | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 |
| Elm Species | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 |
| Oak Species | 0.0 | \$0.00 | 1,239.0 | \$27.12 | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 |
| Basswood | 0.0 | \$0.00 | 1,889.0 | \$11.41 | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 |
| Mixed/Other Hdwds | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 |
| Balsam fir | 0.0 | \$0.00 | 0.0 | \$0.00 | 3,431.0 | \$16.23 | 0.0 | \$0.00 | 0.0 | \$0.00 |
| White Spruce | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 |
| Black Spruce | 0.0 | \$0.00 | 0.0 | \$0.00 | 7,422.0 | \$21.76 | 0.0 | \$0.00 | 0.0 | \$0.00 |
| Tamarack | 0.0 | \$0.00 | 0.0 | \$0.00 | 2,505.0 | \$5.51 | 0.0 | \$0.00 | 0.0 | \$0.00 |
| White Cedar | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 |
| Jack Pine | 0.0 | \$0.00 | 3,798.0 | \$37.22 | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 |
| Red Pine | 0.0 | \$0.00 | 19,067.0 | \$42.69 | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 |
| White Pine | 0.0 | \$0.00 | 810.0 | \$27.87 | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 |
| Maple Species | 0.0 | \$0.00 | 0.0 | \$0.00 | 2,351.0 | \$8.55 | 0.0 | \$0.00 | 0.0 | \$0.00 |
| Mixed Species | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 |
| Itasca Co. All Species | 0.0 | \$0.00 | 30,514.0 | \$35.13 | 72,261.0 | \$28.18 | 0.0 | \$0.00 | 0.0 | \$0.00 |

EXHIBIT A

**PUBLIC DOCUMENT
TRADE SECRET DATA HAS BEEN EXCISED**

Agency Name: Koochiching Co.

Reporting Period: 01/19 to 12/19

Reporting Basis: Appraisal Reports

| <u>Species Name</u> | <u>Sawtimber</u> | | <u>Pulp and Bolts</u> | | <u>Pulpwood</u> | | <u>Fuelwood</u> | | <u>Biomass</u> | |
|------------------------------------|------------------|------------------|-----------------------|------------------|-----------------|------------------|-----------------|------------------|----------------|------------------|
| | <u>MBF</u> | <u>Avg Price</u> | <u>Cords</u> | <u>Avg Price</u> | <u>Cords</u> | <u>Avg Price</u> | <u>Cords</u> | <u>Avg Price</u> | <u>Tons</u> | <u>Avg Price</u> |
| Aspen | 0.0 | \$0.00 | 0.0 | \$0.00 | 54,317.0 | \$29.95 | 0.0 | \$0.00 | 0.0 | \$0.00 |
| Balm of Gilead | 0.0 | \$0.00 | 0.0 | \$0.00 | 2,507.0 | \$28.73 | 0.0 | \$0.00 | 0.0 | \$0.00 |
| Birch Species | 0.0 | \$0.00 | 0.0 | \$0.00 | 2,930.0 | \$5.89 | 0.0 | \$0.00 | 0.0 | \$0.00 |
| Ash Species | 0.0 | \$0.00 | 0.0 | \$0.00 | 5,383.0 | \$6.05 | 20.0 | \$3.50 | 0.0 | \$0.00 |
| Elm Species | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 |
| Oak Species | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 |
| Basswood | 0.0 | \$0.00 | 0.0 | \$0.00 | 520.0 | \$5.92 | 0.0 | \$0.00 | 0.0 | \$0.00 |
| Mixed/Other Hdws | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 |
| Balsam fir | 0.0 | \$0.00 | 0.0 | \$0.00 | 6,260.0 | \$8.63 | 0.0 | \$0.00 | 0.0 | \$0.00 |
| White Spruce | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 |
| Black Spruce | 0.0 | \$0.00 | 0.0 | \$0.00 | 17,089.0 | \$23.70 | 0.0 | \$0.00 | 0.0 | \$0.00 |
| Tamarack | 0.0 | \$0.00 | 0.0 | \$0.00 | 3,770.0 | \$6.57 | 0.0 | \$0.00 | 0.0 | \$0.00 |
| White Cedar | 0.0 | \$0.00 | 0.0 | \$0.00 | 835.0 | \$4.43 | 0.0 | \$0.00 | 0.0 | \$0.00 |
| Jack Pine | 0.0 | \$0.00 | 2,315.0 | \$40.84 | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 |
| Red Pine | 0.0 | \$0.00 | 3,888.0 | \$46.87 | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 |
| White Pine | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 |
| Maple Species | 0.0 | \$0.00 | 0.0 | \$0.00 | 760.0 | \$6.78 | 0.0 | \$0.00 | 0.0 | \$0.00 |
| Mixed Species | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 | 350.0 | \$3.55 | 0.0 | \$0.00 |
| Koochiching Co. All Species | 0.0 | \$0.00 | 6,203.0 | \$44.62 | 94,371.0 | \$23.78 | 370.0 | \$3.54 | 0.0 | \$0.00 |

EXHIBIT A

**PUBLIC DOCUMENT
TRADE SECRET DATA HAS BEEN EXCISED**

Agency Name: Lake Co.

Reporting Period: 01/19 to 12/19

Reporting Basis: Appraisal Reports

| <u>Species Name</u> | <u>Sawtimber</u> | | <u>Pulp and Bolts</u> | | <u>Pulpwood</u> | | <u>Fuelwood</u> | | <u>Biomass</u> | |
|-----------------------------|------------------|------------------|-----------------------|------------------|-----------------|------------------|-----------------|------------------|----------------|------------------|
| | <u>MBF</u> | <u>Avg Price</u> | <u>Cords</u> | <u>Avg Price</u> | <u>Cords</u> | <u>Avg Price</u> | <u>Cords</u> | <u>Avg Price</u> | <u>Tons</u> | <u>Avg Price</u> |
| Aspen | 0.0 | \$0.00 | 0.0 | \$0.00 | 3,628.0 | \$25.04 | 0.0 | \$0.00 | 0.0 | \$0.00 |
| Balm of Gilead | 0.0 | \$0.00 | 0.0 | \$0.00 | 282.0 | \$12.80 | 0.0 | \$0.00 | 0.0 | \$0.00 |
| Birch Species | 0.0 | \$0.00 | 5,078.0 | \$7.01 | 271.0 | \$6.85 | 0.0 | \$0.00 | 0.0 | \$0.00 |
| Ash Species | 0.0 | \$0.00 | 1,001.0 | \$5.68 | 746.0 | \$4.13 | 0.0 | \$0.00 | 0.0 | \$0.00 |
| Elm Species | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 |
| Oak Species | 0.0 | \$0.00 | 90.0 | \$28.80 | 1,245.0 | \$16.00 | 0.0 | \$0.00 | 0.0 | \$0.00 |
| Basswood | 0.0 | \$0.00 | 1,194.0 | \$5.98 | 170.0 | \$2.24 | 0.0 | \$0.00 | 0.0 | \$0.00 |
| Mixed/Other Hdwds | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 |
| Balsam fir | 0.0 | \$0.00 | 0.0 | \$0.00 | 2,595.0 | \$7.65 | 0.0 | \$0.00 | 0.0 | \$0.00 |
| White Spruce | 0.0 | \$0.00 | 1,237.0 | \$19.75 | 47.0 | \$10.00 | 0.0 | \$0.00 | 0.0 | \$0.00 |
| Black Spruce | 0.0 | \$0.00 | 730.0 | \$23.98 | 55.0 | \$18.76 | 0.0 | \$0.00 | 0.0 | \$0.00 |
| Tamarack | 0.0 | \$0.00 | 0.0 | \$0.00 | 153.0 | \$9.32 | 0.0 | \$0.00 | 0.0 | \$0.00 |
| White Cedar | 0.0 | \$0.00 | 255.0 | \$9.45 | 44.0 | \$7.00 | 0.0 | \$0.00 | 0.0 | \$0.00 |
| Jack Pine | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 |
| Red Pine | 0.0 | \$0.00 | 20.0 | \$20.25 | 18.0 | \$8.00 | 0.0 | \$0.00 | 0.0 | \$0.00 |
| White Pine | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 |
| Maple Species | 0.0 | \$0.00 | 0.0 | \$0.00 | 11,381.0 | \$8.63 | 0.0 | \$0.00 | 0.0 | \$0.00 |
| Mixed Species | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 |
| Lake Co. All Species | 0.0 | \$0.00 | 9,605.0 | \$9.97 | 20,635.0 | \$11.69 | 0.0 | \$0.00 | 0.0 | \$0.00 |

EXHIBIT A

**PUBLIC DOCUMENT
TRADE SECRET DATA HAS BEEN EXCISED**

Agency Name: Pine Co.

Reporting Period: 01/19 to 12/19

Reporting Basis: Appraisal Reports

| <u>Species Name</u> | <u>Sawtimber</u> | | <u>Pulp and Bolts</u> | | <u>Pulpwood</u> | | <u>Fuelwood</u> | | <u>Biomass</u> | |
|-----------------------------|------------------|------------------|-----------------------|------------------|-----------------|------------------|-----------------|------------------|----------------|------------------|
| | <u>MBF</u> | <u>Avg Price</u> | <u>Cords</u> | <u>Avg Price</u> | <u>Cords</u> | <u>Avg Price</u> | <u>Cords</u> | <u>Avg Price</u> | <u>Tons</u> | <u>Avg Price</u> |
| Aspen | 0.0 | \$0.00 | 0.0 | \$0.00 | 11,336.0 | \$48.15 | 0.0 | \$0.00 | 0.0 | \$0.00 |
| Balm of Gilead | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 |
| Birch Species | 0.0 | \$0.00 | 0.0 | \$0.00 | 1,105.0 | \$19.52 | 0.0 | \$0.00 | 0.0 | \$0.00 |
| Ash Species | 0.0 | \$0.00 | 37.0 | \$36.00 | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 |
| Elm Species | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 |
| Oak Species | 0.0 | \$0.00 | 111.0 | \$30.68 | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 |
| Basswood | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 |
| Mixed/Other Hdwds | 0.0 | \$0.00 | 0.0 | \$0.00 | 45.0 | \$18.78 | 0.0 | \$0.00 | 0.0 | \$0.00 |
| Balsam fir | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 |
| White Spruce | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 |
| Black Spruce | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 |
| Tamarack | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 |
| White Cedar | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 |
| Jack Pine | 0.0 | \$0.00 | 95.0 | \$22.20 | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 |
| Red Pine | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 |
| White Pine | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 |
| Maple Species | 0.0 | \$0.00 | 0.0 | \$0.00 | 1,131.0 | \$19.10 | 0.0 | \$0.00 | 0.0 | \$0.00 |
| Mixed Species | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 |
| Pine Co. All Species | 0.0 | \$0.00 | 243.0 | \$28.18 | 13,617.0 | \$43.32 | 0.0 | \$0.00 | 0.0 | \$0.00 |

EXHIBIT A

**PUBLIC DOCUMENT
TRADE SECRET DATA HAS BEEN EXCISED**

Agency Name: St. Louis Co.

Reporting Period: 01/19 to 12/19

Reporting Basis: Appraisal Reports

| Species Name | Sawtimber | | Pulp and Bolts | | Pulpwood | | Fuelwood | | Biomass | |
|----------------------------------|------------|---------------|-----------------|----------------|------------------|----------------|------------|---------------|----------------|---------------|
| | MBF | Avg Price | Cords | Avg Price | Cords | Avg Price | Cords | Avg Price | Tons | Avg Price |
| Aspen | 0.0 | \$0.00 | 0.0 | \$0.00 | 79,410.0 | \$30.75 | 0.0 | \$0.00 | 0.0 | \$0.00 |
| Balm of Gilead | 0.0 | \$0.00 | 0.0 | \$0.00 | 791.0 | \$30.03 | 0.0 | \$0.00 | 0.0 | \$0.00 |
| Birch Species | 0.0 | \$0.00 | 0.0 | \$0.00 | 13,898.0 | \$9.26 | 0.0 | \$0.00 | 0.0 | \$0.00 |
| Ash Species | 0.0 | \$0.00 | 0.0 | \$0.00 | 1,266.0 | \$5.45 | 0.0 | \$0.00 | 0.0 | \$0.00 |
| Elm Species | 0.0 | \$0.00 | 0.0 | \$0.00 | 1.0 | \$5.94 | 0.0 | \$0.00 | 0.0 | \$0.00 |
| Oak Species | 0.0 | \$0.00 | 0.0 | \$0.00 | 2.0 | \$5.00 | 0.0 | \$0.00 | 0.0 | \$0.00 |
| Basswood | 0.0 | \$0.00 | 0.0 | \$0.00 | 2,431.0 | \$10.39 | 0.0 | \$0.00 | 0.0 | \$0.00 |
| Mixed/Other Hdwds | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 |
| Balsam fir | 0.0 | \$0.00 | 0.0 | \$0.00 | 14,500.0 | \$16.51 | 0.0 | \$0.00 | 0.0 | \$0.00 |
| White Spruce | 0.0 | \$0.00 | 0.0 | \$0.00 | 4,405.0 | \$24.54 | 0.0 | \$0.00 | 0.0 | \$0.00 |
| Black Spruce | 0.0 | \$0.00 | 0.0 | \$0.00 | 22,218.0 | \$28.35 | 0.0 | \$0.00 | 0.0 | \$0.00 |
| Tamarack | 0.0 | \$0.00 | 0.0 | \$0.00 | 4,873.0 | \$5.44 | 0.0 | \$0.00 | 0.0 | \$0.00 |
| White Cedar | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 |
| Jack Pine | 0.0 | \$0.00 | 5,823.0 | \$23.49 | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 |
| Red Pine | 0.0 | \$0.00 | 5,439.0 | \$32.07 | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 |
| White Pine | 0.0 | \$0.00 | 755.0 | \$34.70 | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 |
| Maple Species | 0.0 | \$0.00 | 0.0 | \$0.00 | 10,546.0 | \$6.18 | 0.0 | \$0.00 | 0.0 | \$0.00 |
| Mixed Species | 0.0 | \$0.00 | 0.0 | \$0.00 | 16.0 | \$20.34 | 0.0 | \$0.00 | 1,784.8 | \$0.43 |
| St. Louis Co. All Species | 0.0 | \$0.00 | 12,017.0 | \$28.08 | 154,357.0 | \$23.94 | 0.0 | \$0.00 | 1,784.8 | \$0.43 |

EXHIBIT A

**PUBLIC DOCUMENT
TRADE SECRET DATA HAS BEEN EXCISED**

MINNESOTA FEDERAL AGENCIES 2019

Agency Name: USDI-BIA

Reporting Period: 01/19 to 12/19

Reporting Basis: Scale Receipts

| Species Name | Sawtimber | | Pulp and Bolts | | Pulpwood | | Fuelwood | | Biomass | |
|-----------------------------|-------------|----------------|----------------|----------------|-----------------|----------------|-------------|---------------|------------|---------------|
| | MBF | Avg Price | Cords | Avg Price | Cords | Avg Price | Cords | Avg Price | Tons | Avg Price |
| Aspen | 0.0 | \$0.00 | 0.0 | \$0.00 | 15,180.8 | \$18.47 | 0.0 | \$0.00 | 0.0 | \$0.00 |
| Balm of Gilead | 0.0 | \$0.00 | 0.0 | \$0.00 | 49.9 | \$11.27 | 0.0 | \$0.00 | 0.0 | \$0.00 |
| Birch Species | 0.0 | \$0.00 | 0.0 | \$0.00 | 1,636.7 | \$4.99 | 36.0 | \$5.30 | 0.0 | \$0.00 |
| Ash Species | 0.0 | \$0.00 | 0.0 | \$0.00 | 363.7 | \$8.43 | 0.0 | \$0.00 | 0.0 | \$0.00 |
| Elm Species | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 |
| Oak Species | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 |
| Basswood | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 |
| Mixed/Other Hdwds | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 |
| Balsam fir | 0.0 | \$0.00 | 36.6 | \$14.07 | 1,256.1 | \$11.11 | 0.0 | \$0.00 | 0.0 | \$0.00 |
| White Spruce | 0.0 | \$0.00 | 118.9 | \$40.00 | 418.9 | \$23.82 | 0.0 | \$0.00 | 0.0 | \$0.00 |
| Black Spruce | 0.0 | \$0.00 | 0.0 | \$0.00 | 579.6 | \$19.19 | 0.0 | \$0.00 | 0.0 | \$0.00 |
| Tamarack | 0.0 | \$0.00 | 0.0 | \$0.00 | 9.4 | \$3.54 | 0.0 | \$0.00 | 0.0 | \$0.00 |
| White Cedar | 0.0 | \$0.00 | 518.3 | \$9.39 | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 |
| Jack Pine | 0.0 | \$0.00 | 88.5 | \$39.98 | 482.0 | \$29.64 | 0.0 | \$0.00 | 0.0 | \$0.00 |
| Red Pine | 15.5 | \$93.75 | 429.4 | \$25.50 | 13.1 | \$10.27 | 0.0 | \$0.00 | 0.0 | \$0.00 |
| White Pine | 0.0 | \$0.00 | 5.2 | \$29.30 | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 |
| Maple Species | 0.0 | \$0.00 | 0.0 | \$0.00 | 224.2 | \$6.15 | 0.0 | \$0.00 | 0.0 | \$0.00 |
| Mixed Species | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 | 57.1 | \$5.04 | 0.0 | \$0.00 |
| USDI-BIA All Species | 15.5 | \$93.75 | 1,196.9 | \$20.70 | 20,214.4 | \$16.97 | 93.1 | \$5.14 | 0.0 | \$0.00 |

EXHIBIT A

**PUBLIC DOCUMENT
TRADE SECRET DATA HAS BEEN EXCISED**

Agency Name: Chippewa N.F.

Reporting Period: 10/18 to 9/19

Reporting Basis: Appraisal Reports

| Species Name | Sawtimber | | Pulp and Bolts | | Pulpwood | | Fuelwood | | Biomass | |
|----------------------------------|-----------------|-----------------|-----------------|----------------|-----------------|----------------|----------------|---------------|----------------|---------------|
| | MBF | Avg Price | Cords | Avg Price | Cords | Avg Price | Cords | Avg Price | Tons | Avg Price |
| Aspen | 0.0 | \$0.00 | 0.0 | \$0.00 | 27,519.1 | \$34.65 | 0.0 | \$0.00 | 0.0 | \$0.00 |
| Balm of Gilead | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 |
| Birch Species | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 |
| Ash Species | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 |
| Elm Species | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 |
| Oak Species | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 |
| Basswood | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 |
| Mixed/Other Hdwds | 0.0 | \$0.00 | 17,443.9 | \$15.40 | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 |
| Balsam fir | 0.0 | \$0.00 | 0.0 | \$0.00 | 1,986.8 | \$18.77 | 0.0 | \$0.00 | 0.0 | \$0.00 |
| White Spruce | 0.0 | \$0.00 | 2,179.9 | \$34.93 | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 |
| Black Spruce | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 |
| Tamarack | 0.0 | \$0.00 | 307.0 | \$10.60 | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 |
| White Cedar | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 |
| Jack Pine | 5.0 | \$109.34 | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 |
| Red Pine | 13,896.0 | \$148.50 | 7,044.5 | \$29.50 | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 |
| White Pine | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 |
| Maple Species | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 |
| Mixed Species | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 | 1,097.6 | \$4.05 | 2,223.0 | \$0.33 |
| Chippewa N.F. All Species | 13,901.0 | \$148.49 | 26,975.3 | \$20.60 | 29,505.9 | \$33.58 | 1,097.6 | \$4.05 | 2,223.0 | \$0.33 |

EXHIBIT A

**PUBLIC DOCUMENT
TRADE SECRET DATA HAS BEEN EXCISED**

Agency Name: Superior N.F.

Reporting Period: 10/18 to 9/19

Reporting Basis: Appraisal Reports

| <u>Species Name</u> | <u>Sawtimber</u> | | <u>Pulp and Bolts</u> | | <u>Pulpwood</u> | | <u>Fuelwood</u> | | <u>Biomass</u> | |
|----------------------------------|------------------|------------------|-----------------------|------------------|------------------|------------------|-----------------|------------------|----------------|------------------|
| | <u>MBF</u> | <u>Avg Price</u> | <u>Cords</u> | <u>Avg Price</u> | <u>Cords</u> | <u>Avg Price</u> | <u>Cords</u> | <u>Avg Price</u> | <u>Tons</u> | <u>Avg Price</u> |
| Aspen | 0.0 | \$0.00 | 0.0 | \$0.00 | 43,545.2 | \$25.83 | 0.0 | \$0.00 | 0.0 | \$0.00 |
| Balm of Gilead | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 |
| Birch Species | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 |
| Ash Species | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 |
| Elm Species | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 |
| Oak Species | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 |
| Basswood | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 |
| Mixed/Other Hdwds | 0.0 | \$0.00 | 434.0 | \$9.85 | 4,724.4 | \$5.64 | 0.0 | \$0.00 | 0.0 | \$0.00 |
| Balsam fir | 0.0 | \$0.00 | 0.0 | \$0.00 | 9,572.5 | \$5.39 | 0.0 | \$0.00 | 0.0 | \$0.00 |
| White Spruce | 0.0 | \$0.00 | 4,022.0 | \$30.20 | 8,433.8 | \$16.25 | 0.0 | \$0.00 | 0.0 | \$0.00 |
| Black Spruce | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 |
| Tamarack | 0.0 | \$0.00 | 571.7 | \$15.02 | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 |
| White Cedar | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 |
| Jack Pine | 0.0 | \$0.00 | 3,006.0 | \$30.19 | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 |
| Red Pine | 0.0 | \$0.00 | 17,072.0 | \$42.18 | 19,178.4 | \$5.40 | 0.0 | \$0.00 | 0.0 | \$0.00 |
| White Pine | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 |
| Maple Species | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 |
| Mixed Species | 0.0 | \$0.00 | 0.0 | \$0.00 | 15,444.5 | \$5.32 | 0.0 | \$0.00 | 0.0 | \$0.00 |
| Superior N.F. All Species | 0.0 | \$0.00 | 25,105.7 | \$37.65 | 100,898.8 | \$15.12 | 0.0 | \$0.00 | 0.0 | \$0.00 |

EXHIBIT A

PUBLIC DOCUMENT
 TRADE SECRET DATA HAS BEEN EXCISED

MnDNR FORESTRY [STATE] 2019

Agency Name: MnDNR Forestry

Reporting Period: 01/19 to 12/19

Reporting Basis: Appraisal Reports

| Species Name | Sawtimber | | Pulp and Bolts | | Pulpwood | | Fuelwood | | Biomass | |
|--------------------------|-----------------|-----------------|------------------|----------------|------------------|----------------|----------------|---------------|-----------------|---------------|
| | MBF | Avg Price | Cords | Avg Price | Cords | Avg Price | Cords | Avg Price | Tons | Avg Price |
| Aspen | 68.7 | \$72.00 | 0.0 | \$0.00 | 373,078.3 | \$25.51 | 0.0 | \$0.00 | 0.0 | \$0.00 |
| Balm of Gilead | 0.0 | \$0.00 | 0.0 | \$0.00 | 256.3 | \$12.96 | 0.0 | \$0.00 | 0.0 | \$0.00 |
| Birch Species | 0.3 | \$53.33 | 15,580.4 | \$19.96 | 11,367.1 | \$10.55 | 0.0 | \$0.00 | 0.0 | \$0.00 |
| Ash Species | 153.7 | \$152.27 | 19,088.9 | \$10.41 | 9,966.2 | \$6.60 | 396.3 | \$2.50 | 0.0 | \$0.00 |
| Elm Species | 22.7 | \$54.07 | 0.5 | \$16.20 | 86.6 | \$5.86 | 0.0 | \$0.00 | 0.0 | \$0.00 |
| Oak Species | 1,368.1 | \$252.92 | 22,128.1 | \$27.45 | 1,075.1 | \$18.72 | 156.3 | \$7.15 | 0.0 | \$0.00 |
| Basswood | 132.9 | \$75.34 | 12,135.5 | \$10.43 | 813.9 | \$6.45 | 0.0 | \$0.00 | 0.0 | \$0.00 |
| Mixed/Other Hdwds | 73.3 | \$80.89 | 836.0 | \$13.02 | 3,553.0 | \$10.87 | 97.0 | \$5.59 | 0.0 | \$0.00 |
| Balsam fir | 0.0 | \$0.00 | 7,531.0 | \$21.47 | 26,466.3 | \$15.31 | 0.0 | \$0.00 | 0.0 | \$0.00 |
| White Spruce | 0.0 | \$0.00 | 41,213.6 | \$26.75 | 21,949.0 | \$20.40 | 5.0 | \$1.00 | 0.0 | \$0.00 |
| Black Spruce | 0.0 | \$0.00 | 11,575.6 | \$28.06 | 22,881.2 | \$19.85 | 21.3 | \$8.00 | 0.0 | \$0.00 |
| Tamarack | 0.0 | \$0.00 | 5,180.0 | \$6.96 | 20,591.9 | \$5.32 | 1,971.0 | \$2.65 | 0.0 | \$0.00 |
| White Cedar | 0.0 | \$0.00 | 709.9 | \$8.60 | 204.5 | \$5.67 | 1.0 | \$2.50 | 0.0 | \$0.00 |
| Jack Pine | 0.0 | \$0.00 | 12,255.7 | \$21.69 | 1,742.4 | \$14.02 | 268.0 | \$2.21 | 0.0 | \$0.00 |
| Red Pine (a) | 9,776.1 | \$137.45 | 55,404.9 | \$35.87 | 1,560.3 | \$7.93 | 84.4 | \$2.19 | 0.0 | \$0.00 |
| White Pine (b) | 596.5 | \$98.53 | 405.9 | \$29.08 | 380.2 | \$9.89 | 0.0 | \$0.00 | 0.0 | \$0.00 |
| Maple Species | 0.0 | \$0.00 | 11,838.5 | \$16.83 | 21,143.4 | \$12.60 | 112.0 | \$6.76 | 0.0 | \$0.00 |
| Mixed Species | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 | 0.0 | \$0.00 | 34,843.7 | \$1.41 |
| MnDNR All Species | 12,192.3 | \$147.15 | 215,884.5 | \$24.78 | 517,115.7 | \$22.23 | 3,112.3 | \$3.08 | 34,843.7 | \$1.41 |

a) Includes 8,318.5 Mbf sold as cords, converted at 2 cords per Mbf.

b) Includes 589 Mbf sold as cords, converted at 2 cords per Mbf.

EXHIBIT B

**PUBLIC DOCUMENT
TRADE SECRET DATA HAS BEEN EXCISED**

EXHIBIT B

EXHIBIT B

PUBLIC DOCUMENT
TRADE SECRET DATA HAS BEEN EXCISED

Exhibit B provided with the non-public version of this affidavit has been marked “Trade Secret” in its entirety. Pursuant to Minn. R. 7829.0500, subp. 3, OTP-EITE provides the following description of the excised material:

1. Nature of the Material: Exhibit B is an excerpt from a competitive assessment of the electricity rates of western stud/short lumber mills that was commissioned by the participants in the study. It shows the results of a survey of participants’ electrical power rates, electrical power costs, and power usage.

2. Authors: The study was authored by the Beck Group.

3. Importance: The excerpt contains sensitive business information that was provided by participants on the condition that the information would be kept confidential.

4. Date the Information was Prepared: The study was prepared/updated in August 2017.

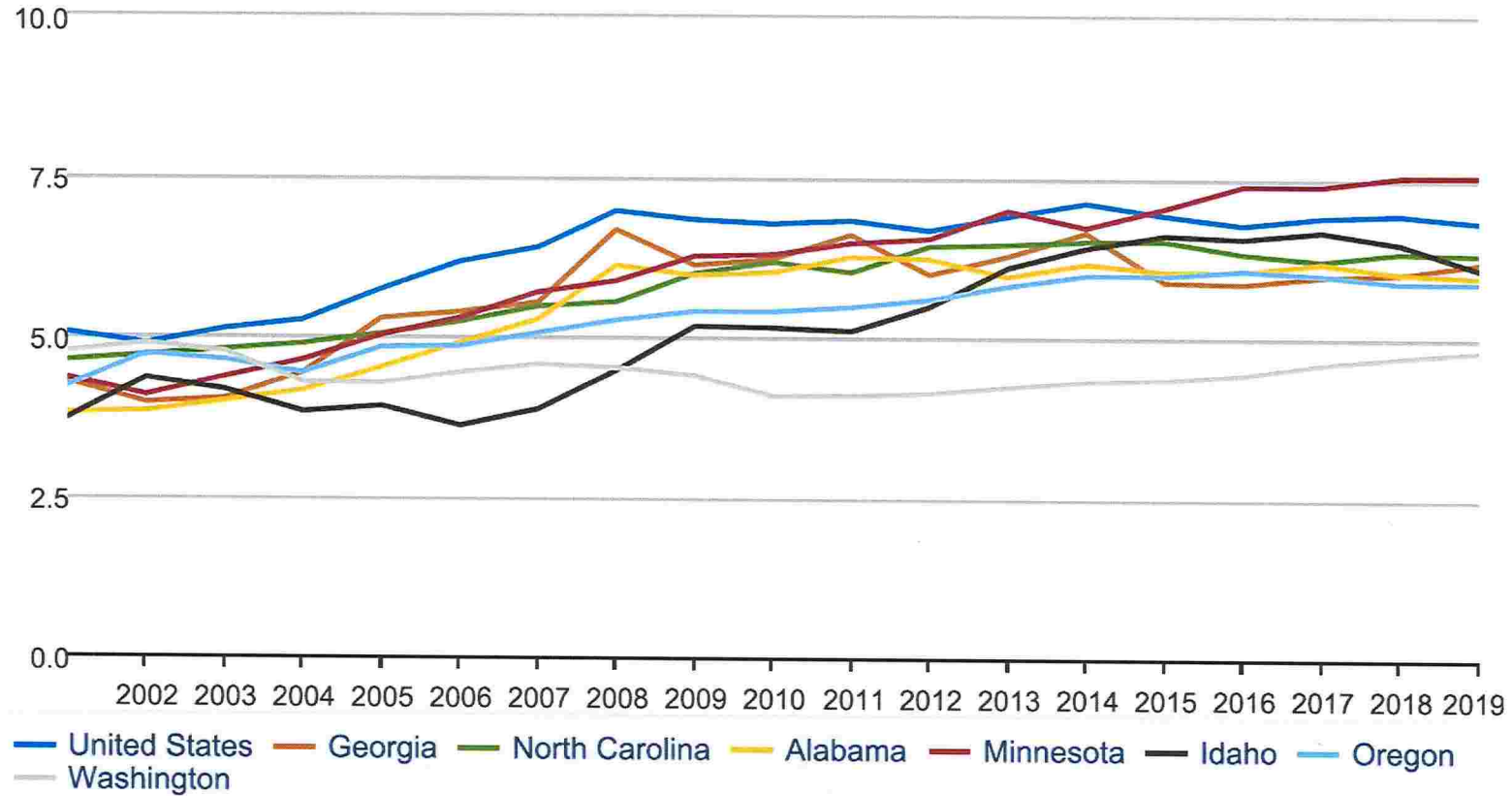
EXHIBIT C

**PUBLIC DOCUMENT
TRADE SECRET DATA HAS BEEN EXCISED**

EXHIBIT C

Average retail price of electricity, industrial, annual

cents per kilowatthour



Data source: U.S. Energy Information Administration

EXHIBIT D

**PUBLIC DOCUMENT
TRADE SECRET DATA HAS BEEN EXCISED**

EXHIBIT D

