

Member FINRA/SIPC

Toll-Free: 866-928-0928 ♦ www.DawsonJames.com ♦ 101 North Federal Highway - Suite 600 ♦ Boca Raton, FL 33432

22nd Century Group, Inc. (NASDAQ: XXII)

November 22, 2022

Buy: Estimate Changes Due to Grass Valley Fire

James McIlree, CFA
561-237-2709
jmcilree@dawsonjames.com

We have reduced our Q4 revenue and EBITDA estimates after the company suffered damage at its Grass Valley, Oregon refinement facility. We have assumed the facility will not re-open until early next year. We expect a short-term impact on revenue and margins.

A fire at the company's Grass Valley hemp refinement facility in Oregon will result in lower revenue and EBITDA in Q4 and have a lingering impact on Q1 revenue. Proceeds from insurance, which could occur in Q1, will offset some of the margin impact.

Grass Valley is a 30,000-square-foot refinement facility and a key component of GVB's asset base. In Q3, GVB generated almost \$8 million of revenue from the Grass Valley refinement facility and from the Las Vegas private label/contract manufacturing plant. A new extraction facility in Prineville Oregon, about 100 miles south of Grass Valley, was scheduled to open this quarter and planned to feed Grass Valley with lower-cost, higher-quality raw material, which would have boosted margins. The fire at Grass Valley will probably impact the timing and ramp of production at Prineville.

Until Grass Valley is re-opened, the company will have to satisfy demand for refined products by purchases on the open market, part of the company's contingency planning. This will hit margins, and we have reduced our margin estimate for this quarter and next to reflect this dynamic. We have assumed the closure of the facility will be temporary and back in operation in Q1. We also expect the company will accelerate plans it had to improve efficiency of the combined operations after the opening of Prineville. This is expected to become evident in the second half of next year.

For this year our new revenue estimate is \$59.4 million, down from \$63.4 million, and for 2023 our new revenue estimate is \$86 million, down from \$90.9 million. We have reduced our EBITDA estimates as well. The EBITDA loss for 2022 is now projected at \$35 million, versus our prior estimate of a \$32.9 million loss, and for 2023 our new EBITDA loss is projected to be \$34.9 million, versus our prior expectation of a \$29.4 million loss. These estimates do not include any benefit from insurance.

Valuation: Our \$8.50 price target is the sum of: An estimated \$4.58/share for the VLN asset, \$3.18/share for the low-nicotine mandate and \$0.74 for the hemp/cannabis franchise.

Risks to Target include, among others: Our price target assumes the company launches VLN pilots in test markets this year and this could take longer than estimated, and/or its partner could demand different terms than assumed. Our price target also assumes a nicotine mandate. The nicotine mandate may take longer to decide, and the transition period could be longer than estimated. See the Risks Analysis section for additional risks.

| | | | | |
|---|-----------|-----------|-------------|-------------|
| Current Price | | | | \$1.06 |
| Price Target | | | | \$8.50 |
| Estimates | F2021A | F2022E | F2023E | |
| Revenues (\$M's) | \$ 30.9 | \$ 59.4 | E \$ 86.0 | |
| 1Q March | \$ 6.8 | \$ 9.0 | A \$ 18.3 | |
| 2Q June | \$ 8.4 | \$ 14.5 | A \$ 20.5 | |
| 3Q September | \$ 7.8 | \$ 19.4 | A \$ 21.4 | |
| 4Q December | \$ 8.0 | \$ 16.5 | E \$ 25.8 | |
| | F2021A | F2022E | F2023E | |
| EPS (diluted) | \$ (0.21) | \$ (0.25) | E \$ (0.23) | |
| 1Q March | \$ (0.03) | \$ (0.05) | A \$ (0.06) | |
| 2Q June | \$ (0.03) | \$ (0.06) | A \$ (0.06) | |
| 3Q September | \$ (0.06) | \$ (0.06) | A \$ (0.06) | |
| 4Q December | \$ (0.09) | \$ (0.07) | E \$ (0.05) | |
| EBITDA (\$Ms) | \$ (23.2) | \$ (35.0) | \$ (34.9) | |
| EV/EBITDA (x) | -9.8x | -6.5x | -6.5x | |
| Stock Data | | | | |
| 52-Week Range | \$0.85 | - | \$3.52 | |
| Shares Outstanding (mil.) | | | | 215.3 |
| Market Capitalization (mil.) | | | | \$228 |
| Enterprise Value (mil.) | | | | \$228 |
| Debt to Capital | | | | 7% |
| Cash (mil.) | | | | \$43.7 |
| Cash/share | | | | \$0.20 |
| Average Three Months Trading Volume (K) | | | | 4,700 |
| Insider Ownership | | | | 3.1% |
| Institutional Ownership | | | | 24.3% |
| Short interest (mil.) | | | | 7.5% |
| Dividend / Yield | | | | \$0.00/0.0% |



Valuation. Our price target of \$8.50 comprises three components: We attribute about \$4.58/share for the VLN asset. The non-addictive nicotine mandate is valued at \$3.18 per share. The remainder of the price target, or \$0.74 per share, equals about \$112 million and encompasses the company's investment in Exactus, the Anandia licenses and the potential from its relationship with KeyGene. We have assumed a long gestation period for the hemp/cannabis business because it is in the early stages. However, the Aurora announcement and the restructuring of the Panacea/Exactus investment could be catalysts to more rapid development of the market and 22nd Century's monetization efforts.

Risk Analysis

Our price target assumes the company launches VLN pilots in test markets this year, and this could take longer than estimated and/or its launch partner could demand different terms than assumed. Our price target also assumes a nicotine mandate. The nicotine mandate may take longer to decide, and the transition period could be longer than estimated. There will likely be other paths attempted by the industry to comply, or the industry may opt to focus on other nicotine delivery systems as regulation of the combustible cigarette market increases. This could affect our assumptions on the royalty rate as well as market share.

Exhibit 1. Income Statement

| (\$ in 000's except per-share data) | 2019 | 2020 | 2021 | Q1 22 A | Q2 22 A | Q3 22 A | Q4 22 E | 2022 E | 2023 E |
|--|-------------|-------------|-------------|------------|-------------|-------------|-------------|-------------|-------------|
| Revenue | \$ 25,833 | \$ 28,111 | \$ 30,948 | \$ 9,045 | \$ 14,477 | \$ 19,383 | \$ 16,500 | \$ 59,405 | \$ 85,966 |
| Cost Of Goods Sold | 25,818 | 26,673 | 28,879 | 8,585 | 13,585 | 18,764 | 14,850 | 55,784 | 71,921 |
| Gross Profit | 14 | 1,438 | 2,069 | 460 | 892 | 619 | 1,650 | 3,621 | 14,045 |
| | 0.1% | 5.1% | 6.7% | 5.1% | 6.2% | 3.2% | 10.0% | 6.1% | 16.3% |
| R&D | 8,057 | 4,128 | 3,274 | 972 | 1,897 | 1,318 | 1,318 | 5,505 | 5,272 |
| G&A | 12,956 | 14,971 | 25,881 | 7,305 | 9,471 | 14,569 | 14,069 | 45,414 | 56,979 |
| Impairment Charge | 1,142 | 176 | 78 | 0 | 0 | 0 | 0 | 0 | 0 |
| Depreciation & Amort. | 1,425 | 1,346 | 1,248 | 329 | 0 | 0 | 0 | 329 | 0 |
| Opex | 23,581 | 20,621 | 30,481 | 8,606 | 11,368 | 15,887 | 15,387 | 51,248 | 62,251 |
| Operating Income | \$ (23,566) | \$ (19,183) | \$ (28,412) | \$ (8,146) | \$ (10,476) | \$ (15,268) | \$ (13,737) | \$ (47,627) | \$ (48,207) |
| Interest and other, net | (2,992) | (490) | (4,183) | (772) | (1,022) | (415) | (478) | (2,687) | (1,912) |
| Pretax Income | (26,559) | (19,673) | (32,595) | (8,918) | (11,498) | (15,683) | (14,215) | (50,314) | (50,119) |
| Income Tax Expense | 0 | 38 | 14 | 0 | 0 | (2,581) | 0 | 0 | 0 |
| Net to Common | \$ (26,559) | \$ (19,711) | \$ (32,609) | \$ (8,918) | \$ (11,498) | \$ (13,102) | \$ (14,215) | \$ (50,314) | \$ (50,119) |
| Shares (000) | 125,883 | 138,813 | 156,208 | 163,157 | 182,044 | 210,131 | 215,302 | 192,658 | 215,689 |
| EPS | (\$0.21) | (\$0.14) | (\$0.21) | (\$0.05) | (\$0.06) | (\$0.06) | (\$0.07) | (\$0.26) | (\$0.23) |
| D&A | 1,425 | 1,346 | 1,248 | 421 | 503 | 1,068 | 1,068 | 3,060 | 4,272 |
| Stock Comp | 3,540 | 1,654 | 3,983 | 1,213 | 1,106 | 2,247 | 2,247 | 6,813 | 8,988 |
| Other | 1,142 | 176 | 0 | 0 | 1,765 | 978 | 0 | 2,743 | 0 |
| EBITDA | \$ (17,459) | \$ (16,007) | \$ (23,181) | \$ (6,512) | \$ (7,102) | \$ (10,975) | \$ (10,422) | \$ (35,011) | \$ (34,947) |

Source: 22nd Century Group, Inc. and Dawson James Securities estimates

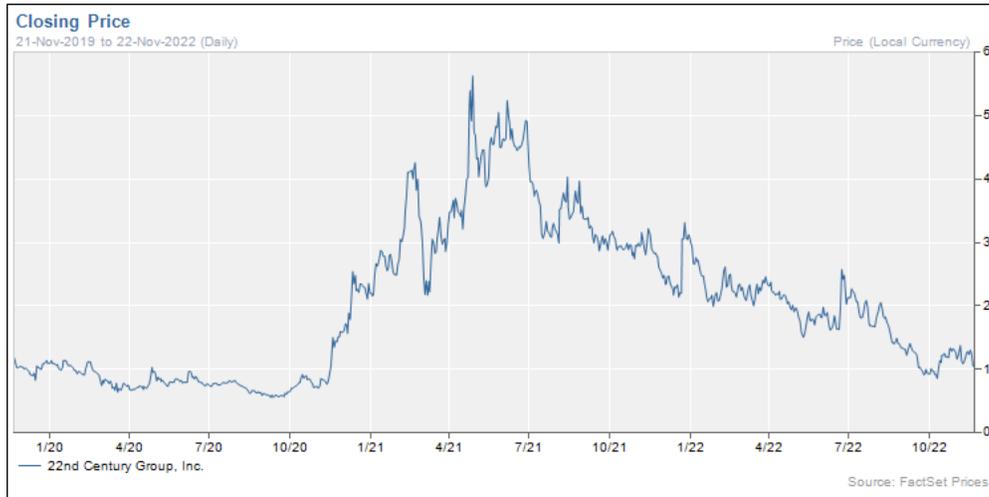
Exhibit 2. Balance Sheet and Cash Flow Statement

| (\$ in 000's) | 2019 | 2020 | 2021 | 2022 E | 2023 E |
|---------------------------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
| Cash | 485 | 1,029 | 1,336 | 2,364 | 2,364 |
| Short-Term Investments | 38,477 | 21,313 | 47,400 | 35,131 | (4,773) |
| A/R | 867 | 2,159 | 585 | 2,712 | 7,073 |
| Inventory | 2,266 | 2,034 | 2,881 | 9,706 | 7,890 |
| Prepaid Exp. | 648 | 1,806 | 2,183 | 3,463 | 3,463 |
| Total Current Assets | \$ 42,743 | \$ 28,341 | \$ 54,385 | \$ 53,376 | \$ 16,017 |
| PP&E | 3,120 | 2,483 | 5,841 | 17,489 | 14,329 |
| Operating Lease | 602 | 247 | 1,723 | 2,429 | 2,429 |
| Goodwill | | 0 | 0 | 33,748 | 33,748 |
| Patent, Trademark, other intangibles | 8,494 | 8,211 | 7,919 | 18,283 | 18,071 |
| Equity Investment | 8,403 | 6,536 | 2,345 | 981 | 981 |
| Other Assets | 5,589 | 5,876 | 3,741 | 4,002 | 4,002 |
| Total Assets | \$ 68,951 | \$ 51,694 | \$ 75,954 | \$ 130,308 | \$ 89,577 |
| Bank Loans and N/P | 581 | 539 | 596 | 5,825 | 5,825 |
| Operating Lease | 220 | 247 | 308 | 927 | 927 |
| A/P | 1,998 | 1,116 | 2,173 | 5,787 | 5,787 |
| Accrued Expenses & Payroll | 2,619 | 4,830 | 5,014 | 3,511 | 3,511 |
| Accrued excise taxes and fees | | 0 | 0 | 1,525 | 1,525 |
| Deferred Income | 5 | 272 | 119 | 693 | 693 |
| Accrued Severance | 359 | 339 | 217 | 397 | 397 |
| Total Current Liabilities | \$ 5,780 | \$ 7,343 | \$ 8,427 | \$ 18,665 | \$ 18,665 |
| Long-Term Debt | 292 | 0 | 0 | 220 | 220 |
| Operating Lease | 382 | 0 | 1,432 | 1,592 | 1,592 |
| Accrued Severance | 446 | 241 | 21 | 0 | 0 |
| Shareholders' Equity | 62,051 | 44,110 | 66,074 | 109,220 | 68,489 |
| Total Liabilities And Equity | \$ 68,951 | \$ 51,694 | \$ 75,954 | \$ 130,308 | \$ 89,577 |
| | 2019 | 2020 | 2021 | 2022 E | 2023 E |
| Net Income | (26,559) | (19,711) | (32,609) | (47,733) | (50,119) |
| Depreciation & Amort. | 1,425 | 1,345 | 1,248 | 3,060 | 4,272 |
| Stock Comp | 3,540 | 1,654 | 3,983 | 6,813 | 8,988 |
| Other | 7,249 | 2,722 | 5,272 | 3,844 | 0 |
| Working Capital | (242) | (1,631) | (733) | (4,733) | (2,545) |
| Operating Cash Flow | \$ (14,587) | \$ (15,621) | \$ (22,839) | \$ (38,749) | \$ (39,404) |
| Acquisition of Patents and trademarks | (515) | (468) | (326) | (519) | (500) |
| CapEx | (527) | (54) | (745) | (2,601) | (400) |
| Other | 5,595 | 16,991 | (26,658) | 3,275 | 0 |
| Investing Activities | \$ 4,552 | \$ 16,469 | \$ (27,729) | \$ 155 | \$ (900) |
| Debt | (700) | (354) | 49 | 638 | 0 |
| Equity | 10,616 | 50 | 50,826 | 32,758 | 400 |
| Other | 0 | 0 | 0 | 0 | 0 |
| Financing Activities | \$ 9,916 | \$ (304) | \$ 50,875 | \$ 33,396 | \$ 400 |
| Change in Cash | (\$120) | \$ 544 | \$ 307 | (\$5,198) | (\$39,904) |

Source: 22nd Century Group, Inc. and Dawson James Securities estimates

Important Disclosures:

Price Chart:



Price target and ratings changes over the past three years:

- Initiated – Buy – April 13, 2021 – Price Target \$7.00
- Update – Buy – April 15, 2021 – Price Target \$7.00
- Update – Buy – April 19, 2021 – Price Target \$7.00
- Update – Buy – May 7, 2021 – Price Target \$7.00
- Update – Buy – June 1, 2021 – Price Target \$7.00
- Update – Buy – June 11, 2021 – Price Target \$7.00
- Update – Buy – July 2, 2021 – Price Target \$7.00
- Update – Buy – July 23, 2021 – Price Target \$7.00
- Update – Buy – August 6, 2021 – Price Target \$7.00
- Update – Buy – August 31, 2021 – Price Target \$7.00
- Update – Buy – October 18, 2021 – Price Target \$7.00
- Update – Buy – November 5, 2021 – Price Target \$7.00
- Update – Buy – November 22, 2021 – Price Target \$7.00
- Update – Buy – December 9, 2021 – Price Target \$7.00
- Update – Buy – December 23, 2021 – Price Target \$7.00
- Price Target Change – Buy – January 6, 2022 – Price Target changed from \$7.00 to \$8.50
- Update – Buy – January 24, 2022 – Price Target \$8.50
- Update – Buy – February 16, 2022 – Price Target \$8.50
- Update – Buy – February 24, 2022 – Price Target \$8.50
- Update – Buy – March 4, 2022 – Price Target \$8.50
- Update – Buy – May 2, 2022 – Price Target \$8.50
- Update – Buy – May 6, 2022 – Price Target \$8.50
- Update – Buy – May 16, 2022 – Price Target \$8.50
- Update – Buy – June 13, 2022 – Price Target \$8.50
- Update – Buy – June 22, 2022 – Price Target \$8.50
- Update – Buy – July 1, 2022 – Price Target \$8.50
- Update – Buy – July 26, 2022 – Price Target \$8.50
- Update – Buy – August 10, 2022 – Price Target \$8.50
- Update – Buy – September 21, 2022 – Price Target \$8.50
- Update – Buy – October 20, 2022 – Price Target \$8.50
- Update – Buy – October 27, 2022 – Price Target \$8.50
- Update – Buy – November 9, 2022 – Price Target \$8.50
- Update – Buy – November 22, 2022 – Price Target \$8.50

Dawson James Securities, Inc. (the "Firm") is a member of the Financial Industry Regulatory Authority ("FINRA") and the Securities Investor Protection Corporation ("SIPC").

The Firm does not make a market in the securities of the subject company(s). The Firm has engaged in investment banking relationships with the subject company in the prior twelve months, as a manager or co-manager of a public offering and has received compensation resulting from those relationships. The Firm may seek compensation for investment banking services in the future from the subject company(s). The Firm has received other compensation from the subject company(s) in the last 12 months for services unrelated to managing or co-managing of a public offering.

Neither the research analyst(s) whose name appears on this report nor any member of his (their) household is an officer, director, or advisory board member of these companies. The Firm and/or its directors and employees may own securities of the company(s) in this report and may increase or decrease holdings in the future. As of November 18, 2022, the Firm as a whole did not beneficially own 1% or more of any class of common equity securities of the subject company(s) of this report. The Firm, its officers, directors, analysts, or employees may affect transactions in and have long or short positions in the securities (or options or warrants related to those securities) of the company(s) subject to this report. The Firm may affect transactions as principal or agent in those securities.

Analysts receive no direct compensation in connection with the Firm's investment banking business. All Firm employees, including the analyst(s) responsible for preparing this report, may be eligible to receive non-product or service-specific monetary bonus compensation that is based upon various factors, including total revenues of the Firm and its affiliates as well as a portion of the proceeds from a broad pool of investment vehicles consisting of components of the compensation generated by investment banking activities, including but not limited to shares of stock and/or warrants, which may or may not include the securities referenced in this report.

Although the statements in this report have been obtained from and are based upon recognized statistical services, issuer reports or communications, or other sources that the Firm believes to be reliable, we cannot guarantee their accuracy. All opinions and estimates included in this report constitute the analyst's judgment as of the date of this report and are subject to change without notice.

Information about valuation methods and risks can be found in the "Valuation" and "Risk Analysis" sections of this report.

The securities of the company discussed in this report may be unsuitable for investors depending on their specific investment objectives and financial position. This report is offered for informational purposes only and does not constitute an offer or solicitation to buy or sell any securities discussed herein in any jurisdiction where such would be prohibited. Additional information is available upon request.

Ratings Definitions:

- 1) **Buy:** The analyst believes the price of the stock will appreciate and produce a total return of at least 20% over the next 12-18 months.
- 2) **Neutral:** The analyst believes the price of the stock is fairly valued for the next 12-18 months.
- 3) **Sell:** The analyst believes the price of the stock will decline by at least 20% over the next 12-18 months and should be sold.

The following chart reflects the range of current research report ratings for all companies, followed by the analysts of the Firm. The chart also reflects the research report ratings relating to those companies for which the Firm has performed investment banking services.

Current as of 18-Nov-22

| | Company Coverage | | Investment Banking | |
|-----------------------------|------------------|------------|--------------------|-------------|
| Ratings Distribution | # of Companies | % of Total | # of Companies | % of Totals |
| Market Outperform (Buy) | 23 | 77% | 2 | 9% |
| Market Perform (Neutral) | 6 | 20% | 1 | 17% |
| Market Underperform (Sell) | 1 | 3% | 0 | 0% |
| Total | 30 | 100% | 3 | 10% |

Analyst Certification:

The analyst(s) whose name appears on this research report certifies that 1) all of the views expressed in this report accurately reflect his (their) personal views about any and all of the subject securities or issuers discussed; and 2) no part of the research analyst's compensation was, is, or will be directly or indirectly related to the specific recommendations or views expressed by the research analyst in this research report; and 3) all Dawson James employees, including the analyst(s) responsible for preparing this research report, may be eligible to receive non-product or service-specific monetary bonus compensation that is based upon various factors, including total revenues of Dawson James and its affiliates as well as a portion of the proceeds from a broad pool of investment vehicles consisting of components of the compensation generated by investment banking activities, including but not limited to shares of stock and/or warrants, which may or may not include the securities referenced in this report.