PLUMAS COUNTY, CA

Biofuel Development Opportunity Zone

RATING GRADE: 'A'

Date of Issue: May 14, 2026

A
High Quality

Rating Parameters:

Category	Rated Quantity	Delivered Price	Supply Zone Size
Pulpwood	165,000 bdt/yr	$80-$90/bdt	75-mi drive distance
Forest Residue	90,000 bdt/yr	$100-$120/bdt	from Taylorsville, CA

BDO ZONE ASSETS

- 255,000 bdt/year of low-risk biomass supply from pulpwood and forest residues with three times as much potentially available at higher risk.
- Annual net growth exceeds removals, indicating harvest levels within a sustainable range.
- The region already has the logging, grinding, and hauling capacity needed to support the rated quantities.
- Existing competitors primarily consume sawmill residues rather than the rated pulpwood and forest residue streams.

BDO ZONE LIABILITIES

- Wildfires pose a great threat to long-term feedstock continuity and operable timberland.
- Drought, temperature change, and related disturbance could reduce future productivity and access.
- Much of the timber base is publicly owned, creating exposure to policy and permitting changes.
- Steep terrain, tight roads, and seasonal restrictions can increase hauling difficulty and delivered cost.
- No direct natural gas and municipal sewer lines present.
- Access to workforce and housing for workforce can present a challenge.

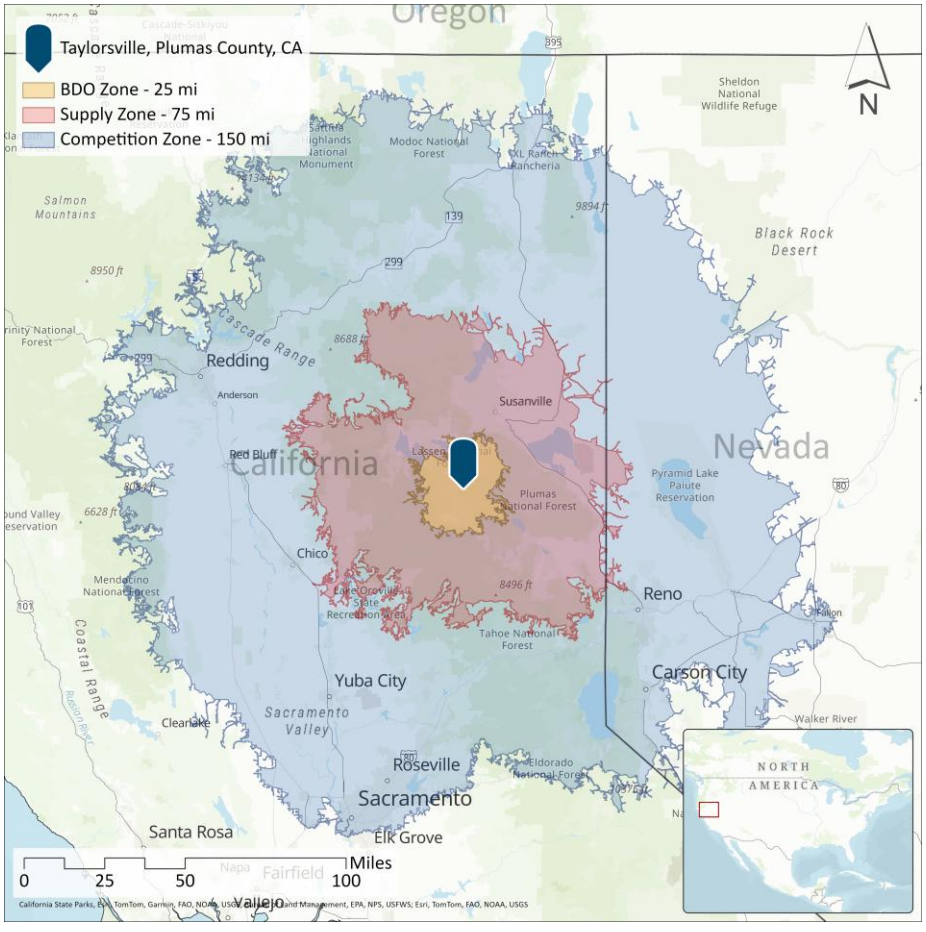
RATING GRADE

The Plumas County Biofuel Development Opportunity Zone, is rated 'A', or 'low' risk.

Risk Rating Grades are defined as follows: AAA (extremely low), AA (very low), A (low), BBB (low-moderate), BB (moderate), B (moderate-high), and C (high).

'A' ratings denote high prospective viability of Feedstock Supply and Infrastructure and low expectations of default risk in the Zone. Capacity to support new biobased plant operations is considered strong. This capacity may, nevertheless, be more vulnerable to adverse weather, supply chain, economic, or infrastructure conditions than is the case for higher ratings.

PLUMAS COUNTY, CA BDO ZONE



ANALYST NOTES

The Supply Zone, defined as the area within a 75-mile drive distance from Taylorsville**,** extends across Plumas, Lassen, Tehama, Butte, and Sierra Counties. It spreads over 4.2 million acres, of which 3.0 million acres are classified as timberland. The forest resource is overwhelmingly softwood-dominated, with white fir, Douglas-fir, and ponderosa pine accounting for 92% of standing tree volume.

Two forest biomass feedstocks were rated within the Supply Zone: pulpwood and forest residues. Pulpwood includes underutilized roundwood from commercial operations, upper-stem material not meeting sawlog specifications, salvageable dead timber, and small-diameter material generated through thinning and fuel treatments. Forest residues consist primarily of stem tops, limbs, and other woody slash generated during harvest and salvage operations. Sawmill residues are excluded from this rating because they are already fully subscribed by existing users.

From an inventory perspective, the Supply Zone retains a favorable fiber balance. The average annual net growth is estimated at roughly 2.1 million bdt per year, compared with average annual removals of about 1.0 million bdt per year, yielding a growth-to-drain ratio of 2.1. In practical terms, this provides strong evidence that merchantable fiber growth continues to exceed removals, leaving significant room for additional utilization.

At the same time, the resource base has been exposed to substantial disturbances; between 2016 and 2025, wildfire affected roughly 1.4 million acres - about half of the timberland base in the Supply Zone. Although standing merchantable inventory has remained comparatively stable in aggregate, these disturbance patterns increase interannual uncertainty in operability, accessibility, and long-range feedstock planning.

BDO ZONE ASSETS

The most consequential strength of the Supply Zone is the scale of rated quantities of 165,000 bdt per year of pulpwood and 90,000 bdt per year of forest residues. From a project-siting standpoint, this constitutes a commercially relevant fiber basket.

The second major asset is the favorable growth-to-drain ratio across the timber resource, which indicates that the harvest activity remains within a sustainable range. Average annual net growth greatly exceeds annual removals, indicating that the timber base is replenishing merchantable volume faster than it is being harvested. From a forestry standpoint, this supports the conclusion that current and incremental utilization can be sustained without placing the resource under undue harvest pressure.

The Supply Zone also benefits from an established logging and biomass recovery infrastructure. The region already supports full-stem harvest systems, salvage logging, forest restoration treatments, in-woods grinding, and truck-based transport. Outreach indicated that the rated quantities can be supported with existing regional resources. Several related risk indicators such as production experience, harvesting equipment, transport redundancy, and capacity to scale are accordingly assessed as low or very low risk.

Competitive pressure on the rated feedstocks appears limited relative to the size of the local resource. Existing facilities within the broader Competition Zone consume an estimated 1.68 million bdt per year, but approximately 413,000 bdt per year sourced from the Supply Zone is sawmill residue rather than pulpwood or forest residues. Since sawmill residues are already fully committed and are not part of the rated opportunity set, existing user demand is not considered a material constraint on the rated pulpwood and forest residue pool.

BDO ZONE LIABILITIES

The dominant liability is wildfire exposure. The Supply Zone lies within a landscape identified by CAL FIRE as having substantial fire hazard, and moderate, high, and very high Fire Hazard Severity Zones are all represented within the Supply Zone. While wildfire can create short-term salvage opportunities, large stand-replacing events can remove productive acres from the operable timber base for extended periods, disrupt access, alter treatment priorities, and impair long-term supply continuity.

Closely related to that is the broader long-term climate risk. Persistent drought, temperature changes, heavier precipitation events, and associated mortality are

expected to affect forest productivity, operability, road access, and stand condition over time. Post-fire landscapes may in some cases become unsuitable for biomass recovery because of erosion or slope-stability concerns, which introduces an additional long-horizon constraint on sustainable feedstock availability.

A further structural concern is the exposure to public-land policy and administrative control. Although a majority of removals occur on private ownerships, 71% of standing timber volume is located on publicly owned forests. This ownership pattern creates dependence on agency priorities, permitting pathways, treatment authorizations, environmental review, and shifts in public-forest management policy.

Transportation and road access are moderate operational constraints even though the overall haul radius remains reasonable. Medium risk is associated with seasonal weight restrictions, wet-weather and snow-related access limitations, steep terrain, tight road curvature, and infrastructure constraints on the use of longer trailers and chip vans. These factors do not preclude procurement, but they can reduce recovery efficiency, limit access to some treatment areas, and increase delivered cost from more difficult portions of the Supply Zone.

INFRASTRUCTURE PROFILE

The evaluated property is the Crescent Mills Industrial Site, a 20–22 acre heavy-industrially-zoned brownfield parcel in Indian Valley, Plumas County, CA, owned and managed by the Sierra Institute for Community and Environment. The site has undergone a full EPA-funded brownfield remediation and features an on-site PG&E electrical substation providing 2.4 MW of three-phase power, direct BNSF rail access with an existing industrial spur, and highway frontage on CA-89. Key liabilities include the complete absence of natural gas service and municipal sewer, a FEMA Flood Hazard Zone A designation, and California's complex permitting environment, which is further complicated by current Plumas County staffing shortfalls causing processing delays. The local labor market presents additional challenges, with a small, aging population base, an unemployment rate well above the national average, and labor costs elevated by California's $16.50/hour minimum wage. Additional, access to housing presents a challenge.

The nearest commercial airport is Reno-Tahoe International, approximately 100 miles away, and there is no interstate highway access in Plumas County. While the site's rail connectivity, completed environmental remediation, and industrial zoning are meaningful assets, the combination of utility gaps, regulatory complexity, workforce constraints, and geographic remoteness increases risk.

SCORING & RATING METHODOLOGY

In assessing the biomass supply chain risk for the Plumas County Biofuel Development Opportunity (BDO) Zone, 75 Risk Indicators from the US Standards for Biomass Supply Chain Risk (BSCR) were applied. These BDO Zone Risk Indicators are the subset of BSCR Risk Indicators applicable to evaluating feedstock risk within a BDO Zone.

- The BDO Zone is a 25-mile drive distance from the center point, which represents the siting area for future biomass projects and is where the industrial site is located.
- The Supply Zone is a 75-mile drive distance from the center point, where feedstock availability was assessed.
- The Competition Zone is a 150-mile drive from the center point, where consumers can compete for feedstock generated in the Supply Zone.

Feedstock quantities are expressed in bone—dry tons per year (bdt/yr), while feedstock costs are expressed in United States dollars (USD). Maximum transport distance is based on a 75-mile driving distance from the center point (Taylorsville, CA).

The BDO Zone rating is based on an aggregation of the scores assigned to each BDO Zone Risk Indicator (RI) assessed in this report. First, each BDO Zone Risk Indicator is given a **Raw Risk Likelihood (RRL)** score, which denotes the likelihood of a risk to future BDO Zone projects due to the Risk Indicator. RRL Scores are scaled as either very low (2), low (4), medium (6), high (8), or very high (10).

Each BDO Zone Risk Indicator is given a **Raw Risk Impact (RRI)** score, which denotes the impact on a future BDO Zone project due to the Risk Indicator. RRI scores are scaled as either very low (2), low (4), medium (6), high (8), or very high (10). Impact level scores are based on the impact level of a risk on the successful development and

deployment of a BDO Zone project with no mitigation measures.

The **Gross Risk Indicator (GRI)** score is then calculated as the product of the RRL and the RRI scores. For example, if an indicator is scored at an RRL of 2 and an RRI of 8, then the GRI for this risk indicator is 2 X 8 = 16.

If the analyst deems that a typical bio-based project could implement economically reasonable measures or best practices that mitigate the likelihood (RRL), the impact (RRI), or both, then the GRI will be notched accordingly.

The **Loaded RI** score for each Risk Indicator is the product of the GRI score and any notched scores. Loaded RIs are the final score for a Risk Indicator.

Loaded RI scores of 4 or less are deemed very low risk; scores between 5 and 16 are deemed low risk; scores between 17 and 36 are deemed medium risk; scores between 37 and 64 are deemed high risk; and scores of 65 and greater are deemed very high risk.

The total risk rating for the BDO Zone is the average of all Loaded RI scores and Infrastructure Indicators. The BDO Zone score for Plumas County, California is ***21.52 out of 100, resulting in an 'A' designation.***

All scoring and rationale for each Risk Indicator are provided in Section D.

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SECTION A: RISK INDICATOR SUMMARY

Figure A-1. All Risk Indicators Sorted by Risk Level

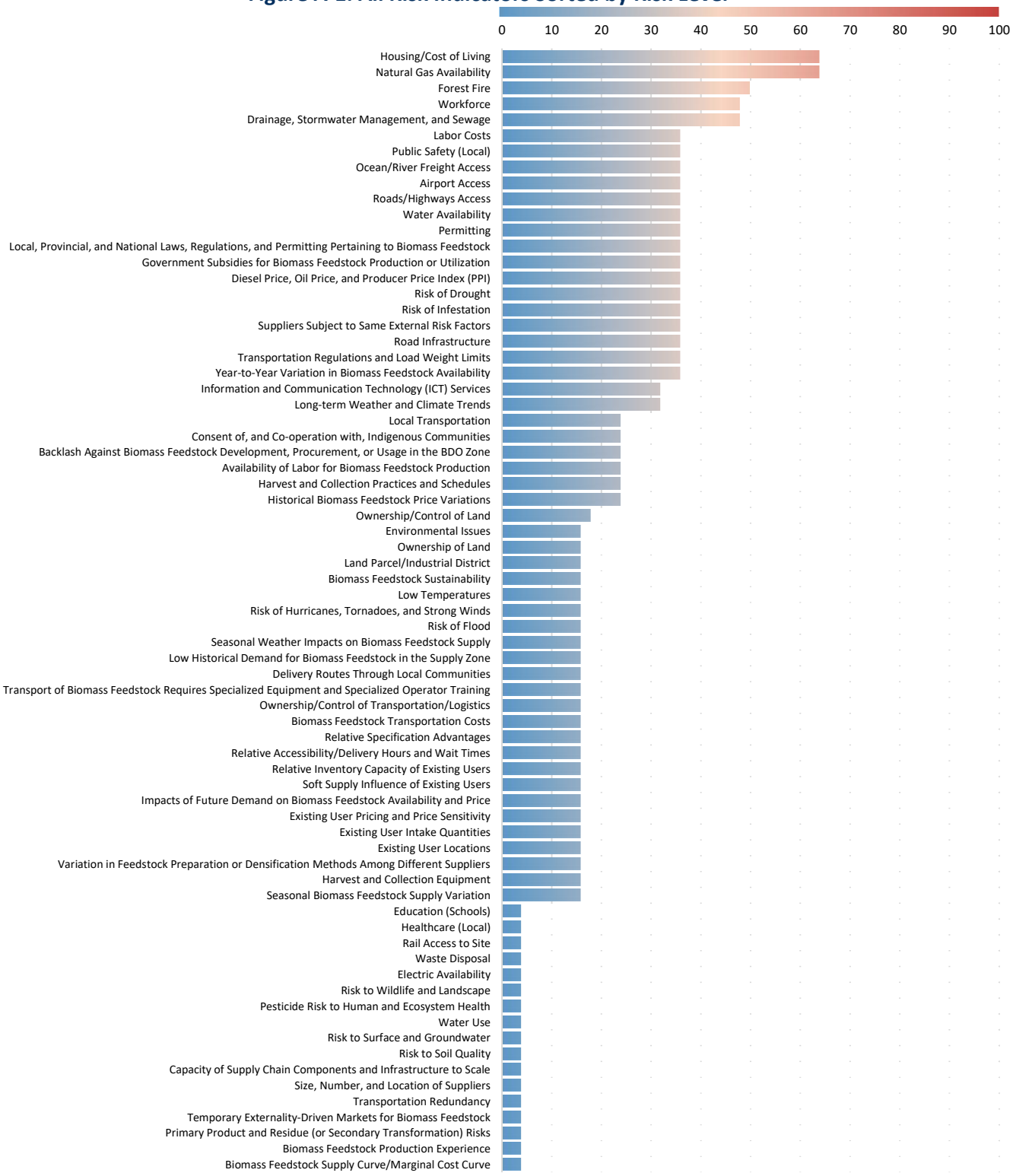


Table A-1. Risk Indicators and Associated Scores

Feedstock Supply Chain Risk Indicators	Raw Risk Likelihood	Raw Risk Impact	Gross Risk Indicator	Mitigation /Notching	Loaded RI Score
Category 1.0: Supply Chain Risk					
1.1 Risk Factor: Quantity and Delivered Cost of Available Biomass Feedstock					
1.1.1 Biomass Feedstock Supply Curve/Marginal Cost Curve	2	2	4	NN	4
1.1.2 Seasonal Biomass Feedstock Supply Variation	4	4	16	NN	16
1.1.3 Year-to-Year Variation in Biomass Feedstock Availability	6	6	36	NN	36
1.1.4 Historical Biomass Feedstock Price Variations	4	6	24	NN	24
1.2 Risk Factor: Harvest and Collection Risk					
1.2.1 Biomass Feedstock Production Experience	2	2	4	NN	4
1.2.2 Primary Product and Residue (or Secondary Transformation) Risks	2	2	4	NN	4
1.2.3 Harvest and Collection Practices and Schedules	4	6	24	NN	24
1.2.4 Harvest and Collection Equipment	4	4	16	NN	16
1.2.5 Ownership/Control of Land	6	6	36	50%	18
1.2.6 Variation in Feedstock Preparation or Densification Methods Among Different Suppliers	4	4	16	NN	16
1.3 Risk Factor: Existing Users					
1.3.1 Existing User Locations	4	4	16	NN	16
1.3.2 Existing User Intake Quantities	4	4	16	NN	16
1.3.3 Existing User Pricing and Price Sensitivity	4	4	16	NN	16
1.3.4 Impacts of Future Demand on Biomass Feedstock Availability and Price	4	4	16	NN	16
1.3.5 Soft Supply Influence of Existing Users	4	4	16	NN	16
1.3.6 Temporary Externality-Driven Markets for Biomass Feedstock	2	2	4	NN	4
1.3.7 Relative Inventory Capacity of Existing Users	4	4	16	NN	16
1.3.8 Relative Accessibility/Delivery Hours and Wait Times	4	4	16	NN	16
1.3.9 Relative Specification Advantages	4	4	16	NN	16
1.4 Risk Factor: Transportation					
1.4.1 Biomass Feedstock Transportation Costs	4	4	16	NN	16
1.4.2 Ownership/Control of Transportation/Logistics	4	4	16	NN	16
1.4.3 Transport of Biomass Feedstock Requires Specialized Equipment and Specialized Operator Training	4	4	16	NN	16
1.4.4 Delivery Routes Through Local Communities	4	4	16	NN	16
1.4.5 Transportation Regulations and Load Weight Limits	6	6	36	NN	36
1.4.6 Road Infrastructure	6	6	36	NN	36
1.4.7 Transportation Redundancy	2	2	4	NN	4
1.5 Risk Factor: Risks Related to Supply Chain Resiliency					
1.5.1 Size, Number, and Location of Suppliers	2	2	4	NN	4
1.5.2 Suppliers Subject to Same External Risk Factors	6	6	36	NN	36
1.6 Risk Factor: Biomass Feedstock Scale-up					
1.6.1 Capacity of Supply Chain Components and Infrastructure to Scale	2	2	4	NN	4
1.6.2 Availability of Labor for Biomass Feedstock Production	4	6	24	NN	24
1.6.3 Low Historical Demand for Biomass Feedstock in the Supply Zone	4	4	16	NN	16
1.7 Risk Factor: Climate and Natural Risks					
1.7.1 Seasonal Weather Impacts on Biomass Feedstock Supply	4	4	16	NN	16
1.7.2 Long-term Weather and Climate Trends	8	8	64	50%	32
1.7.3 Forest Fire	10	10	100	50%	50
1.7.4 Risk of Infestation	6	6	36	NN	36
1.7.5 Risk of Hail	NR	NR	NR	NR	NR
1.7.6 Risk of Flood	4	4	16	NN	16
1.7.7 Risk of Drought	6	6	36	NN	36
1.7.8 Risk of Hurricanes, Tornadoes, and Strong Winds	4	4	16	NN	16
1.7.9 Low Temperatures	4	4	16	NN	16
1.8 Risk Factor: Non-Weather Based Externalities					
1.8.1 Diesel Price, Oil Price, and Producer Price Index (PPI)	6	6	36	NN	36
1.8.2 Currency Risk	NR	NR	NR	NR	NR
1.8.3 Border Risk	NR	NR	NR	NR	NR
1.9 Risk Factor: Political and Social					
1.9.1 Government Subsidies for Biomass Feedstock Production or Utilization	6	6	36	NN	36
1.9.2 Local, Provincial, and National Laws, Regulations, and Permitting Pertaining to Biomass Feedstock	6	6	36	NN	36
1.9.3 Backlash Against Biomass Feedstock Development, Procurement, or Usage in the BDO Zone	4	6	24	NN	24
1.9.4 Consent of, and Co-operation with, Indigenous Communities	4	6	24	NN	24
1.9.5 Food Security Concerns	NR	NR	NR	NR	NR
1.10 Risk Factor: Sustainability and Environmental Concern					
1.10.1 Biomass Feedstock Sustainability	4	4	16	NN	16

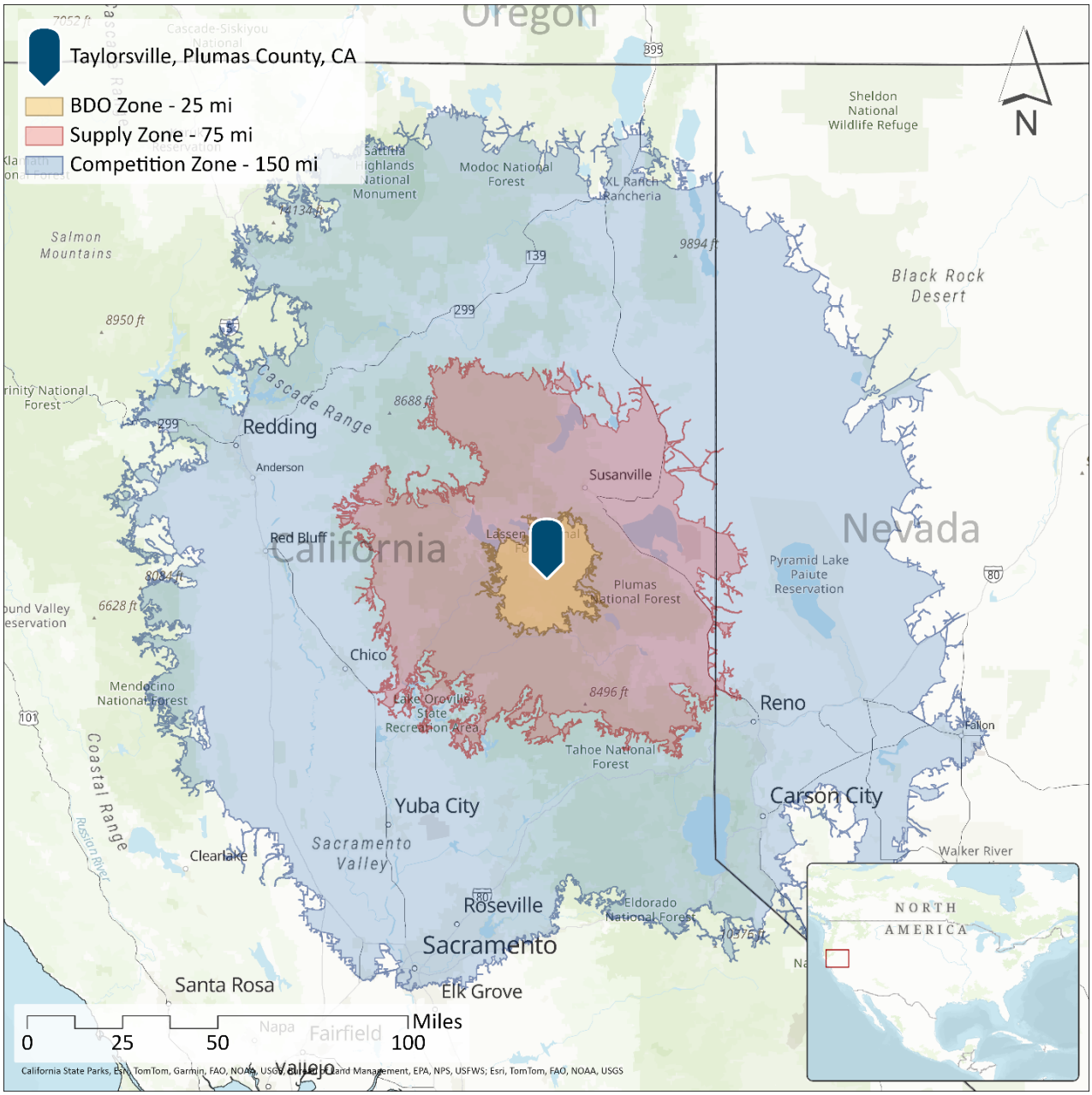
1.10.2 Risk to Soil Quality	2	2	4	NN	4
1.10.3 Risk to Surface and Groundwater	2	2	4	NN	4
1.10.4 Water Use	2	2	4	NN	4
1.10.5 Pesticide Risk to Human and Ecosystem Health	2	2	4	NN	4
1.10.6 Risk to Wildlife and Landscape	2	2	4	NN	4
Category 2.0: Infrastructure					
2.1 Risk Factor: Physical Infrastructure					
2.1.1 Land Parcel/Industrial District	4	4	16	NN	16
2.1.2 Ownership of Land	4	4	16	NN	16
2.1.3 Permitting	6	6	36	NN	36
2.1.4 Environmental Issues	4	4	16	NN	16
2.2 Risk Factor: Utilities					
2.2.1 Natural Gas Availability	8	8	64	NN	64
2.2.2 Electric Availability	2	2	4	NN	4
2.2.3 Water Availability	6	6	36	NN	36
2.2.4 Drainage, Stormwater Management, and Sewage	8	6	48	NN	48
2.2.5 Waste Disposal	2	2	4	NN	4
2.2.6 Information and Communication Technology (ICT) Services	8	4	32	NN	32
2.3 Risk Factor: Transportation/Logistics					
2.3.1 Roads/Highways Access	6	6	36	NN	36
2.3.2 Rail Access to Site	2	2	4	NN	4
2.3.3 Airport Access	6	6	36	NN	36
2.3.4 Ocean/River Freight Access	6	6	36	NN	36
2.4 Risk Factor: Social Infrastructure					
2.4.1 Healthcare (Local)	2	2	4	NN	4
2.4.2 Education (Schools)	2	2	4	NN	4
2.4.3 Local Transportation	6	4	24	NN	24
2.4.4 Public Safety (Local)	6	6	36	NN	36
2.4.5 Housing/Cost of Living	8	8	64	NN	64
2.5 Risk Factor: Labor					
2.5.1 Workforce	6	8	48	NN	48
2.5.2 Labor Costs	6	6	36	NN	36
				Average	**21.52**

SECTION B: BIOMASS AVAILABILITY AND PRICING

OVERVIEW

The analysis is structured around three defined zones, as illustrated in Map B-1: the BDO Zone, the Supply Zone, and the Competition Zone. The BDO Zone encompasses areas within a 25-mile drive from Taylorsville, CA and represents the potential project location. The Supply Zone extends 75 miles drive distance from the center point, delineating the area from where new projects would likely source woody biomass. The Competition Zone, with a 150-mile drive distance, includes facilities that may influence feedstock availability in the Supply Zone.

Map B-1. BDO Zone, Supply Zone, and Competition Zone



The Supply Zone spreads over five counties: Plumas, Lassen, Tehama, Butte, and Sierra. Of the approximately 4.2 million acres of land within the Supply Zone, 3 million acres is comprised of timberland. Softwood tree species constitute 92% of the standing tree volume in the Supply Zone. The predominant softwood species include White fir (30%), Douglas fir (16%), and Ponderosa pine (14%). The remaining 8% of the standing tree volume consists mostly of oaks.[1]

Significant tree mortality rates and forest fires occurred in the Supply Zone in the last decade. Despite these catastrophic events, the Supply Zone maintained a fairly stable standing merchantable timber inventory (Figure E-1). However, a decrease by approximately 3 million bdt (10%) in small-diameter/pulpwood standing timber was recorded between 2016 and 2021 (Figure E-2). While the majority of standing timber volume (71%) is located on publicly owned forests (Figure E-3), 61% of timber volume harvests occur on privately owned forest lands (Figure E-4).[2]

Salvage and forest restoration treatments have increasingly contributed to the local timber and biomass supply, but entail significantly higher costs compared to commercial timber harvesting operations and depend heavily on federal and state funding.

EVALUATED FEEDSTOCKS

The analysis focuses on two biomass resources in the Supply Zone: pulpwood and forest residues.[3] Sawmill residues, including wood chips, sawdust, shavings, and bark were excluded from this rating as they are fully committed to other industries (see Competition section).

Pulpwood*: Consists of underutilized roundwood logs generated from various harvesting practices, as follows:

1. **Pulpwood Harvest** consists of small diameter trees felled during sawtimber harvesting that do not meet sawmill specifications.
2. **Pulpwood Logs** consist of the upper-stem biomass of sawtimber trees that do not meet sawmill specifications.
3. **Pulpwood Salvageable Mortality** are trees killed or damaged by wildfires or disease deemed accessible.
4. **Pulpwood Thinnings** result from wildfire fuel reduction and forest restoration activities.

* Note that pulpwood is a feedstock category that may not be widely utilized in the region, especially due to the lack of pulp and paper mills. However, this terminology was utilized for consistency and comparability between different BDO Zone ratings.

Forest residues: Stem tops, branches, and other woody materials generated during timber harvesting operations. These materials are typically piled and burned, or scattered across harvest areas.

The rated feedstock quantities presented herein were determined through estimation of potentially harvestable amounts of each biomass type in the Supply Zone, with consideration of anticipated demand for biomass in the Competition Zone. A Biomass Availability Multiple (BAM) has been applied to account for the overarching assumptions, uncertainties in underlying data, models, and future operating conditions. The resulting rated quantities represent conservative estimates of biomass availability for new bio-projects. Price ranges were established through market analysis and outreach in the Competition Zone and represent current expected delivered prices that a new project will need to pay to secure the rated quantities.

[1] apps.fs.usda.gov/fiadb-api/evalidator
[2] Ibid.
[3] Note that both Pulpwood and Forest Residues include material that is designated by CalFire as High Hazard Fuels and includes material sourced directly from forests, including whole trees removed as forest management treatments that are not otherwise used as sawtimber or veneer logs. It also includes the portions of trees not utilized by forest products manufacturers, including branches, tree tops, and the portions of a tree's main stem that are defective. California Public Utilities Commission. "Bioenergy Renewable Auction Mechanism (BioRAM)." Accessed March 31, 2026. https://www.cpuc.ca.gov/industries-and-topics/electrical-energy/electric-power-procurement/rps/rps-procurement-programs/rps-bioram.

SUPPLY ANALYSIS

Pulpwood

The Supply Zone produces spruce, pine, fir sawlogs. Sawlogs are transported to the three sawmills located up to 75 miles from Taylorsville. Full stem harvesting and transportation constitute the predominant logging practice in the region. Salvage of dead trees, fire remediation, and forest restoration treatments also occur in the Supply Zone. These treatments exhibit significantly higher costs compared to traditional commercial harvesting, attributable to reduced productivity and accessibility. Consequently, a substantial volume of biomass generated through these treatments, including pulpwood as defined above, is piled and burned or masticated and left on site. A new biomass project in Taylorsville could leverage the available pulp logs and capitalize on the existing logging capacity.

Figure B-1. Average Annual Net Growth, Average Annual Removals, and Average Annual Salvageable Mortality in the Supply Zone (2019-2021)[4]

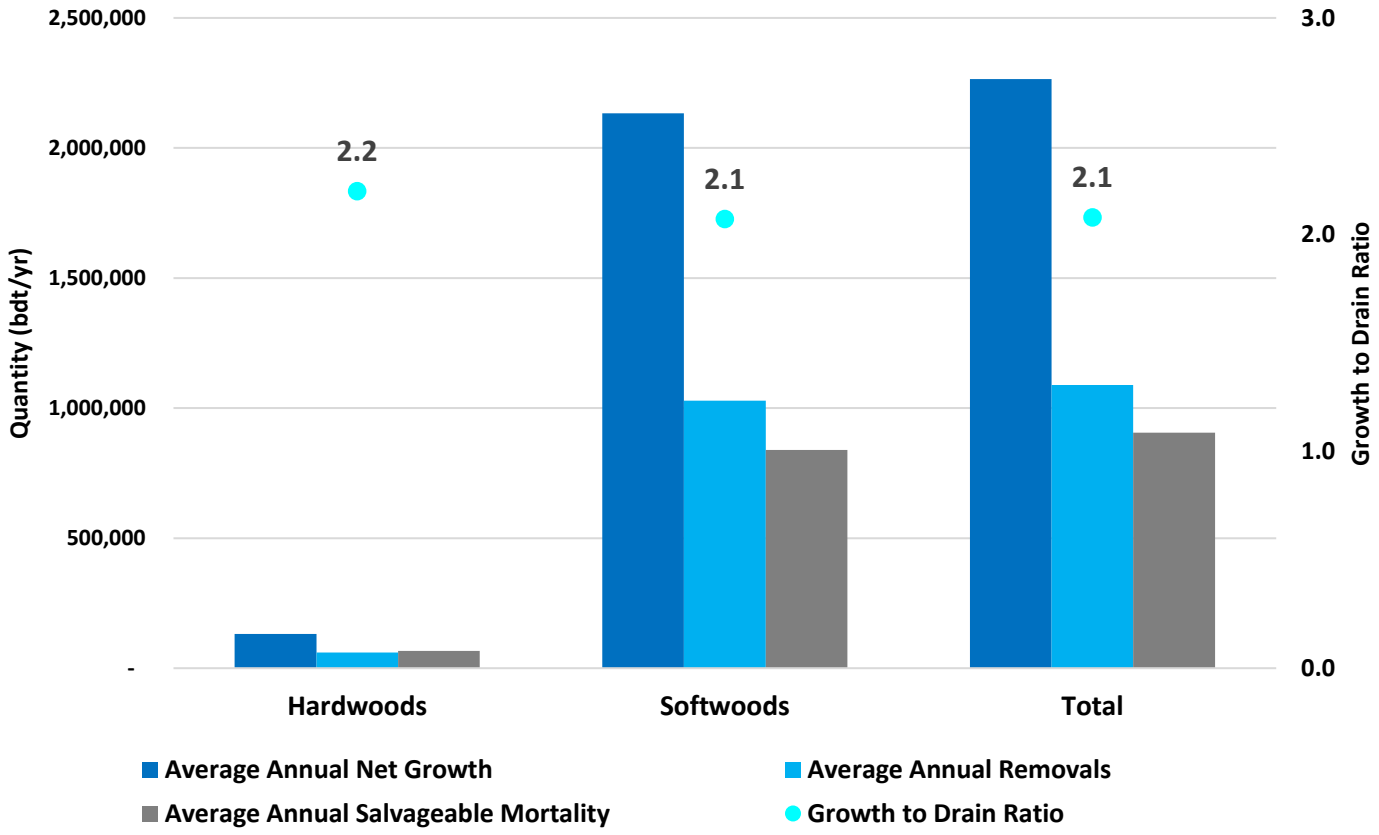


Figure B-1 illustrates the average annual net growth, salvageable mortality, and removals per major species categories (hardwoods and softwoods). Overall, the forest stands in the Supply Zone exhibit substantial annual net growth (2.1 million bdt/yr), of which only one half (1 million bdt/yr) is harvested, resulting in a Growth to Drain ratio[5] of 2.1. In other words,

[4] apps.fs.usda.gov/fiadb-api/evalidator. Variables: 574007 Average annual net growth of merchantable bole bark and wood biomass of growing-stock trees (at least 5 inches d.b.h.), in dry short tons, on timberland; 574049: Average annual removals of merchantable bole bark and wood biomass of growing-stock trees (at least 5 inches d.b.h.), in dry short tons, on timberland; 574027: Average annual mortality of merchantable bole bark and wood biomass of growing-stock trees (at least 5 inches d.b.h.), in dry short tons, on timberland

[5] The ratio between the annual net growth and removals. A GTD > 1.1 indicates sustainable removals below the net growth measured in a forest area.

each year there is 2.1 times as much merchantable fiber added to the Supply Zone as is taken out, providing for sustainable harvesting levels and plenty of room for additional harvest.

The FIA data estimated that an average of 122,000 bdt/year of pulpwood size trees are harvested. Forest thinning and fuels reduction projects in Fire Hazard Severity Zones (FHSZ) represent an additional source of pulpwood, potentially yielding approximately 206,000 bdt/yr, while reducing wildfire risk.[6] Furthermore, approximately 123,000 bdt/yr of dead pulpwood-size trees could be salvaged. Salvageable mortality represents the average annual quantity of biomass from standing dead trees that could be accessed by commercial harvesting equipment.[7] Additionally, FIA data indicates that approximately 44,000 bdt/yr of pulpwood logs[8] are generated through commercial harvesting operations in the Supply Zone. A pulp log is a log that is sorted during log processing operations as unsuitable for sawmilling production due to its size, straightness, knots, rot, or other defects. Table B-1 summarizes the average pulpwood availability estimates from various sources, indicating an average of 495,000 bdt/year of pulpwood generated in the Supply Zone.

Table B-1. Average Annual Pulpwood Generation in the Supply Zone

Source	Quantity (bdt/yr)
Pulpwood Harvest	122,000
Pulpwood Thinnings	206,000
Pulpwood Salvageable Mortality	123,000
Pulpwood Logs	44,000
Total Pulpwood Available	**495,000**

Forest residues

The FIA data estimates that, on average, approximately 272,000 bdt/yr of forest residues[9] are generated in the Supply Zone from harvesting operations. Local forestry experts have indicated that in-woods grinding operations are available in the region and capable of processing this quantity. However, accessibility for chip vans to haul the ground material to a project in Taylorsville may be sometimes hindered by steep slopes and tight road curves.

Sawmill Residues

Three sawmills located within the Supply Zone have a combined annual lumber capacity of 445 million board feet (MMBF). These sawmills generate residues, including wood chips, sawdust, shavings, and bark, that are widely utilized in the Competition Zone for wood pellets and bioenergy. Overall, the facilities consume approximately 727,575 bdt of sawlogs each year to support their full-scale operations.[10] Table B-2 outlines the estimated quantity of sawmill residues generated by these three sawmills. Our supply and demand analysis, vetted by our outreach to local mills and experts, indicated that the entire quantity of sawmill residues produced in the Supply Zone is fully committed to existing competitors and thus was **not rated**.

Table B-2. Sawmill Residue Production Estimates in the Supply Zone

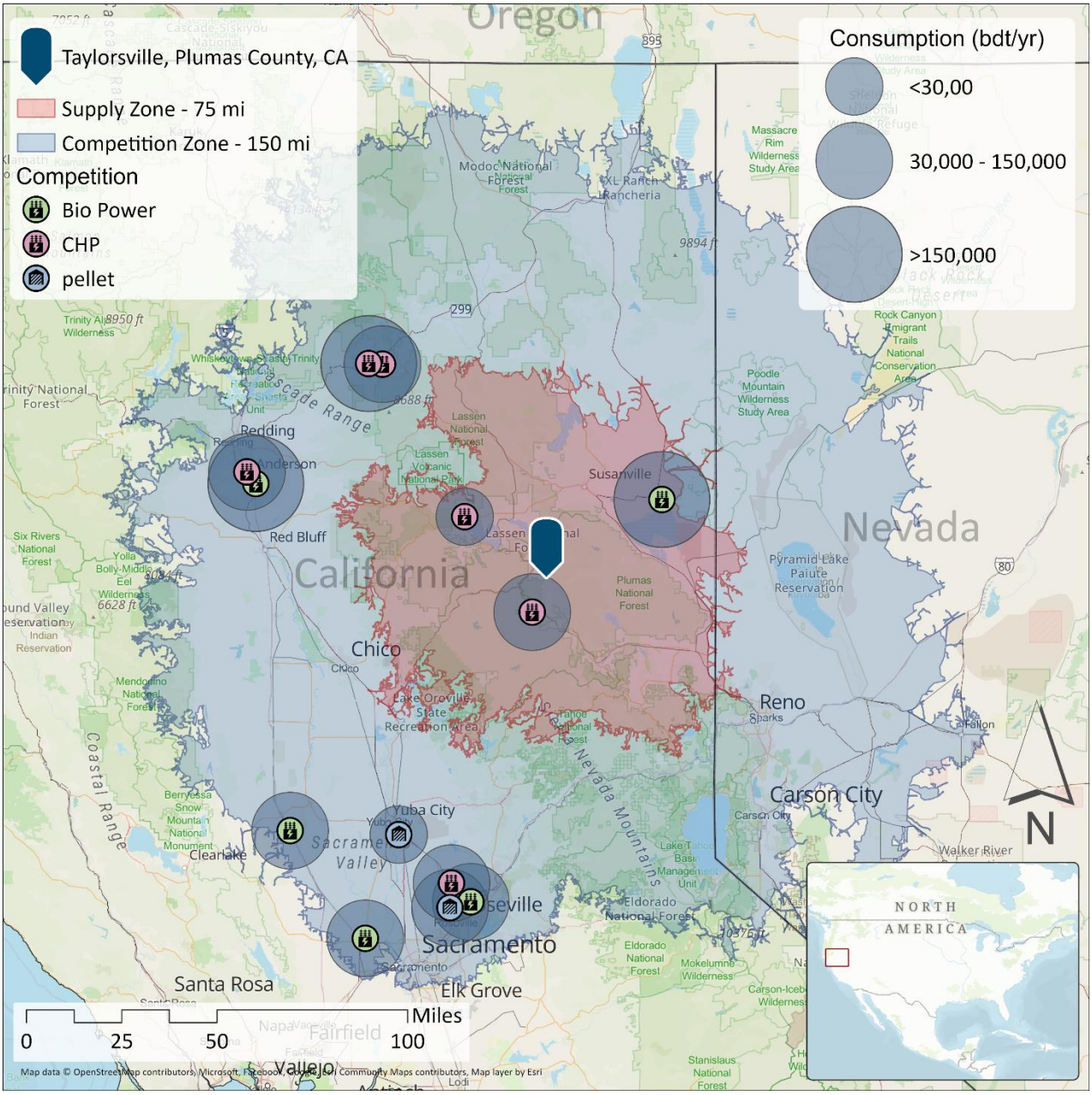
Sawmill Residue	Chips	Sawdust	Shavings	Bark	TOTAL
Estimated Quantity (bdt/yr)	**231,000**	**44,000**	**51,000**	**86,700**	**412,700**

[6] Based on the average annual treated acreage between 2020 and 2024 (interagencytrackingsystem.org) and the average biomass yields on public and private lands (tssconsultants.com/wp-content/uploads/2025/04/MCRCD-Feedstock-Supply-Analysis-Report-Final-20230427-2.pdf).
[7] Based on FIA mortality data filtered by slope (< 20%) and distance to road (< 1 mi).
[8] apps.fs.usda.gov/fiadb-api/evalidator, Variable 574054: Average annual removals of merchantable bole bark and wood biomass above the sawlog of sawtimber trees, in dry short tons, on timberland.
[9] apps.fs.usda.gov/fiadb-api/evalidator, Variables: 574065 - Average annual removals of top and limb bark and wood biomass of growing-stock trees (at least 5 inches d.b.h.), in dry short tons, on timberland. Value rounded to the nearest 1,000 bdt.
[10] www.foriskmilldata.com (Q1 2026).

COMPETITION ANALYSIS

Thirteen competitors for biomass exist inside the Competition Zone (Map B-2): two pellet mills, six combined heat and power (CHP), and five biomass power plants. In the past decade, the number and total wood intake of competitors in the Competition Zone has been stable, with an increase in 2025 due to the opening of a new pellet mill (Figure B-2). These 13 competitors consume an estimated 1.68 million bdt of biomass per year (Table B-3), of which an estimated 413,000 bdt/yr of sawmill residues are sourced from the Supply Zone.

Map B-2. Biomass Competitors in the Competition Zone[11]



[11] Ibid.

Figure B-2. Historical Total Wood Intake and Number of Facilities in the Competition Zone[12]

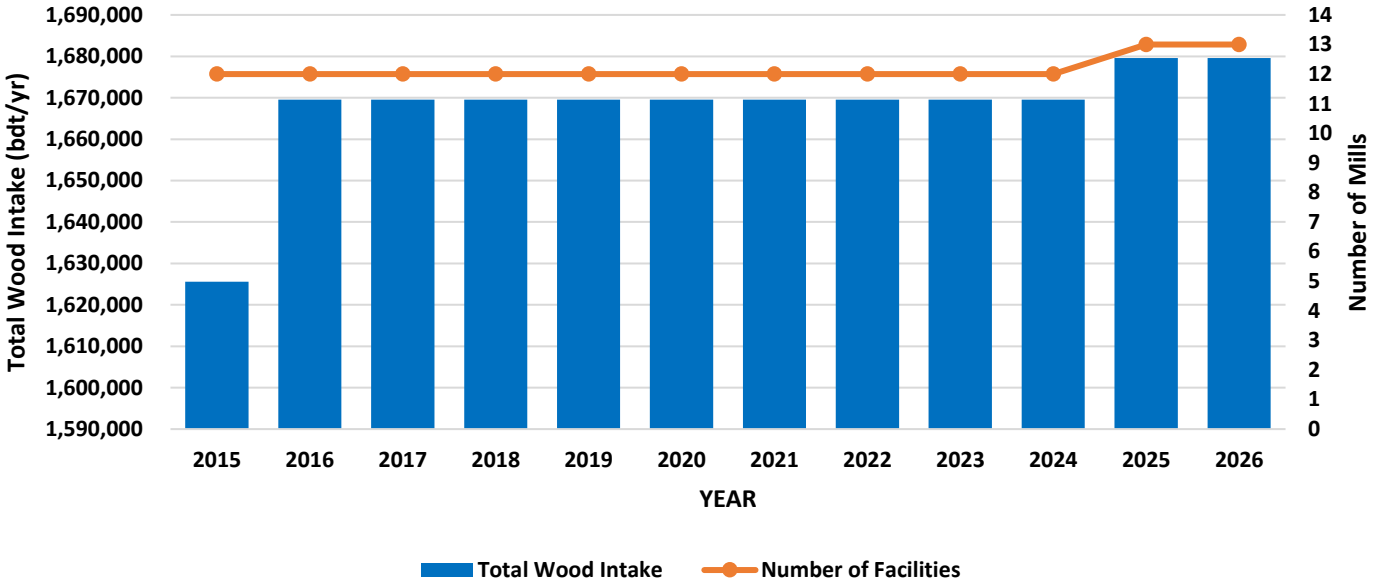


Table B-3. Biomass Demand by Competitor Category[13]

Competitor Category	Biomass Demand (bdt/yr)	% Total Demand	Feedstock Demand from Supply Zone* (bdt/yr)	Biomass Types
CHP + Bio-Power	1,560,000	93%	400,000	100% Sawmill residues
Pellet Mills	120,000	7%	13,000	100% Sawmill residues
Total	**1,680,000**		**413,000**	

* Adjusted proportionally to the distance from Taylorsville to each competitor.

Table B-4 shows that, after considering the current demand of 413,000 bdt/yr of sawmill residues, 495,000 bdt/yr of pulpwood and 272,000 bdt/yr of forest residues are potentially available to a biomass project.

Table B-4. Woody Biomass Production, Demand, and Availability by Feedstock Type

Feedstock Type	Production (bdt/yr)	Demand (bdt/yr)	Availability (bdt/yr)
Pulpwood	495,000	-	495,000
Forest residues	272,000		272,000
Sawmill residues	413,000	413,000	-
Total	**1,180,000**	**413,000**	**767,000**

[12] Ibid.
[13] Ibid.

RATED QUANTITIES AND PRICING

Table B-5 summarizes the technical, rated quantities and unsubsidized price ranges of pulpwood and forest residues. The Biomass Availability Multiple (BAM) factor of 3.0 applied to the available quantities of pulpwood and forest residues accounts for uncertainty in the accuracy of existing inventory, scale-up readiness, historical harvesting practices and volumes, and sudden changes in supply and demand. However, once supply chains for the envisioned biomass project were established, additional volumes will likely become available for expansion.

Table B-5. Rated Quantities and Delivered Price Ranges of Biomass in the Supply Zone

Feedstock Type	Available Quantity (bdt/yr)	Biomass Availability Multiple (BAM)	Rated Quantity (bdt/yr)	Delivered Price Range ($/bdt)
Pulpwood	495,000	3.0	165,000	80-90
Forest Residues	272,000	3.0	90,000	80-100
Totals	**767,000**		**255,000**	

Table B-6 provides estimated, unsubsidized, delivered price ranges for pulpwood and forest residues within a 75-mile haul distance from the center point, and an average transport distance of 50 miles. These price estimates are based on input from regional forestry professionals and cross-referenced with published sources. Note that the actual market prices for feedstock are lower than the rated price range, as subsidies for harvesting pulpwood and forest residues are provided by grant funding,[14] state funding,[15] and USDA Forest Service contracts aimed at reducing wildfire fuel loads. As a result, these resources are not harvested based on market demand, but are influenced by state policies and advocacy efforts.

Table B-6. Rated Quantities and Delivered Price Ranges of Biomass in the Supply Zone

Feedstock Type	Stumpage ($/bdt)	Collection ($/bdt)	Logging ($/bdt)	Chipping ($/bdt)	Transport ($/bdt; 50 miles drive-distance)	Delivered Price Range ($/bdt)
Pulpwood	5		50-60		25	80-90
Forest Residues	0	20-30	0	50-60	30	100-120

[14] Sources of grant funding: Sierra Nevada Conservancy. sierranevada.ca.gov/grants/; CalFire Forest Health Grants. www.fire.ca.gov/what-we-do/grants/forest-health; CalFire Wildfire Prevention Grants. www.fire.ca.gov/what-we-do/grants/wildfire-prevention-grants; California Climate Investments Wildfire Prevention Grants Program. www.caclimateinvestments.ca.gov/fire-prevention-grants. Accessed March 31, 2026.
[15] Governor signs wildfire package. www.gov.ca.gov/2021/04/13/governor-newsom-signs-landmark-536-million-wildfire-package-accelerating-projects-to-protect-high-risk-communities/. Accessed March 31, 2026.

OPERATIONAL CONSIDERATIONS

To supply the rated quantity of pulpwood, 4 logging crews[16] and 13 logging trucks[17] would be necessary. In addition, 2 grinders[18] and 8 chip vans[19] would be necessary to grind and transport the rated quantity of forest residues to Taylorsville. Outreach to local foresters has indicated availability of the above resources in the region. However, the following operational considerations drawn from outreach to local forestry professionals should be noted:

The most important operational consideration is economics: producing pulpwood and forest residues works if the delivered value covers cutting, skidding, processing, chipping or grinding, and hauling, which is usually not the case without subsidy or a higher local gate price. Biomass recovery currently operates at a financial loss and relies almost entirely on external subsidies or grant funding to be viable. While current cogeneration plants pay around $40 to $60 per bdt, suppliers need a facility gate price between $100 and $120 per bdt to maintain a sustainable market and cover the costs of cutting, hauling, and chipping. To justify the processing of small-diameter logs specifically, loggers require approximately one and a half times the rate of a regular sawlog. Furthermore, the current influx of federal subsidies supporting biomass removal is expected to expire around 2028, necessitating a long-term economic solution.

Haul distance is a key cost driver, so a biomass project needs a facility close enough to the supply to support efficient truck cycling, because long hauls quickly consume project margins and make forest residues uneconomic. Truck operators generally need to guarantee at least three trips per day to reach a break-even point. Additionally, physical access is a challenge, as tight road systems require specialized equipment like mule trains, and turnaround space for chip vans is heavily constrained. Weather is also a major operational factor, as heavy winter snow and spring mud conditions limit the logging season to an eight- to nine-month window.

Feedstock specifications must be defined clearly, especially the diameter range for non-merchantable material, top size, log length, moisture, and species mix, because these determine whether material is treated as sawtimber, pulpwood, chips, or hog fuel and directly affect sorting and utilization at the landing. Operations also need the right harvest system and landing design, since most contractors rely on mechanized whole-tree harvesting, roadside processing, and separate decking of biomass and sawlogs, which requires adequate landing space and careful product separation.

Seasonality must be built into the operating plan, because snow, mud, saturated soils, and summer fire restrictions shorten the logging season and can interrupt both harvesting and pile-burning windows. A reliable contractor base and workforce are essential, since the region depends on experienced operators, truckers, and equipment crews, and several interviews note that unstable contract flow discourages investment in chippers, trucks, and labor training.

The project also needs predictable offtake and pricing, because contractors will not consistently recover and deck biomass if facilities stop taking material without notice or if pricing swings between free disposal and temporary subsidy-supported demand. Finally, the operation should prioritize already decked or roadside material where possible, because much of the planning and harvesting cost has already been incurred, making those residues the most practical near-term feedstock for a biomass project.

REGULATORY CONSIDERATIONS

In California, access to biomass feedstock for projects like biomass heating is regulated primarily by the California Department of Forestry and Fire Protection (CAL FIRE) under the Z'berg-Nejedly Forest Practice Act of 1973 and the associated California Forest Practice Rules. These apply to non-federal lands, including state and private timberlands in the Supply Zone. Permits focus on sustainable harvesting, environmental protection, and public review, and are submitted

[16] Estimates assume an average of 14 truckloads/day/crew, 14 bdt/truckload, 9 work months/year (allowing for months and areas with heavy snow)
[17] Estimates assume an average of 4 roundtrips per day
[18] Estimates assume 20 bdt/hr grinder productivity, 9 work months/year (allowing for months and areas with heavy snow)
[19] Estimates assume 4 chip vans per grinder

through the online California Timber Regulation and Environmental Evaluation System (CalTREES). Multi-agency review involves entities like the California Department of Fish and Wildlife, Regional Water Quality Control Boards, and the California Geological Survey. Public lands may involve additional coordination with the U.S. Forest Service (USFS) via agreements like Good Neighbor Authority.

Wildfire Fuel Reduction Biomass

This involves thinning, brush removal, and salvage from high-hazard zones to mitigate fire risk. Regulations prioritize expedited access to encourage removal over on-site burning or mastication. Much of this occurs on public lands under fuel reduction goals, with biomass extracted for utilization.

- **Key Permits and Exemptions**:
    - **Forest Resilience Exemption (formerly Forest Fire Prevention Exemption)**: Allows up to 300 acres for fuel breaks and thinning in high-hazard areas; no Timber Harvesting Plan (THP) needed if conditions met (e.g., no watercourse impacts).
    - **Dead, Dying, or Diseased Exemption**: For removing infested or fire-damaged trees; unlimited acreage if documented.
    - **Fuel Hazard Reduction Emergency Notice**: For immediate post-fire or pre-emptive thinning; valid for 1 year, extendable.
    - **Less Than 3-Acre Conversion Exemption**: For small-scale clearing, with waivers for repeated use under certain conditions.
    - **Structure Protection Fire Safe Exemption**: For 150-300 feet around structures.

These exemptions require notices filed with CAL FIRE, often with minimal review (e.g., 5-10 days). If removal involves burning residues, separate burn permits from the Northern Sierra Air Quality Management District are needed on permissive burn days.

Recent Changes (2023-2025)

Regulations have evolved to accelerate fuel reduction amid increasing wildfires, with updates emphasizing exemptions for faster access. No major overhauls to traditional THP processes, but refinements to exemptions:

- **AB 2276 (Effective January 2024)**: Repealed the Small Timberland Owner Exemption; renamed the Forest Fire Prevention Exemption to Forest Resilience Exemption; extended fuel reduction exemptions (e.g., Forest Resilience, Oak Woodland) until January 1, 2031.
- **AB 1526 (2023)**: Authorized waivers for one-time use of <3-acre conversion exemptions, with Board of Forestry regulations implemented in 2025.
- **Emergency Forest Resilience and Oak Woodland Exemption Amendments (Effective January 2025)**: Updated rules for exemptions, incorporating AB 2276 changes to enhance resilience-focused activities.
- **Forest Practice Rules 2025 Edition**: Incorporates all above, with forms revised July 2024 (e.g., for exemptions).
- **Wildfire and Forest Resilience Action Plan Updates**: CAL FIRE expanded fuels reduction to 100,000 acres annually by 2025, indirectly easing access via more funded projects.

SECTION C: INFRASTRUCTURE

PROPERTY OVERVIEW

Site Name:	Crescent Mills Industrial Site
Address:	15690 California Highway 89
City:	Crescent Mills
State:	California
County:	Plumas
Acres:	20-22
Topography:	Flat
Zoning:	Heavy Industrial

SITE CONTACTS

Economic Development Contact
Darrell Webster
Plumas County Fire Safe Council
530-214-3888
darrell@plumasfiresafe.org

Industrial Site Contact
Laurel Hicke
Sierra Institute for Community & Environment
530-284-1022 x 601
lhicke@sierrainstitute.us

ADDITIONAL NON-RATED SITES

Infrastructure Site Contact
Jaidan Hunt
Manager of Advisory Operations
jaidan@ecostrat.com

TRANSPORTATION

The Crescent Mills Industrial Site is located 377 feet from CA-89, a two-lane highway. There is no interstate highway access, and the nearest major freeway connection is via CA-70, or US-395. Rail lines are directly adjacent to the property, serviced by BNSF Railway, with a short industrial rail spur at the site. The nearest airport is a small airport in Quincy (16.7 miles), and the closest commercial/international airport is Reno-Tahoe International Airport (100 miles).

ELECTRIC SERVICE

Electric service is provided by Pacific Gas and Electric Company (PG&E) with a substation located directly on site. The site has three-phase power with an industrial capacity of 2.4 MW. **Contact:** David Barrios, D2Bb@pge.com

NATURAL GAS

There is no natural gas service available to the site.

WATER

Water service is provided by the Indian Valley Community Services District. The site is fed by a 3" water service that branches off a 6" water main. **Contact:** Charles Slagter, Operations Manager, cslagter@indianvalleycsd.com

WASTEWATER

There is no wastewater line available to the Crescent Mills Industrial Site.

TELECOMMUNICATIONS

Telecommunication services are not available on the site; however, telecommunication lines are located immediately adjacent to the site.

SECTION D: RISK INDICATOR SCORING METRICS

CATEGORY 1.0: SUPPLY CHAIN RISK

1.1 Risk Factor: Quantity and Delivered Cost of Available Biomass Feedstock

1.1.1 Biomass Feedstock Supply Curve/Marginal Cost Curve

Rationale: The greater the feasible transport distance, the more feedstock is accessible to the Issuer, but at a higher delivered cost. The feedstock supply curve, sometimes referred to as the marginal cost curve, is a function of feedstock availability over its cost, which is primarily, but not exclusively, a function of distance. The feedstock supply curve is used to determine the availability of redundant feedstock at various price points, as well as the cost of replacing feedstock with substitutes located at different distances.

Feedstock cost curves are useful in determining supply chain resilience; they provide information about the cost of feedstock availability in times of supply disturbance. Biomass supply chains are prone to supply disturbances over time; suppliers can become insolvent, or weather events can temporarily disrupt feedstock availability. When a disturbance occurs, the Issuer may need to source replacement feedstock from different suppliers at different locations and at different costs. A biomass supply curve indicates quantities of feedstock available at various price levels from suppliers generally located further away than the core supplier.

Risk Information: Supply and marginal cost curves developed for Taylorsville (Figure E-6) indicate that the rated quantities of pulpwood and forest residue can be sourced within a relatively short haul distance of less than 50 miles. The curves also show that additional volume is available at higher delivered prices, providing redundancy if the normal supply is disrupted. Accordingly, feedstock accessibility within economically practical transport distances is considered very low risk, with little expected impact on supply security.

Raw Risk Likelihood (RRL)	**Score**
The risk likelihood is deemed very low, therefore the RRL is 2 out of 10.	**2**
Raw Risk Impact (RRI)	**Score**
The risk impact is deemed very low, therefore the RRI is 2 out of 10.	**2**
Gross Risk Indicator (GRI)	**Score**
The Gross Risk Indicator (RRL X RRI) is 4 out of 100.	**4**
Mitigation/Notching	**Notch**
RRL Mitigation (Notch) No adjustment. *RRI Mitigation (Notch)* No adjustment. The Total Notch (RRL Notch) X (RRI Notch) is NN (No Notch).	**NN**
Loaded RI Score	**Score**
The Loaded RI Score ((1-Total Notch) X GRI Score) is 4 out of 100.	**4**

1.1.2 Seasonal Biomass Feedstock Supply Variation

Rationale: Biomass supply can present significant seasonal variations. Seasonal supply variations, combined with limitations associated with longer-distance transportation and storage, can lead to BDO Zone biomass supply imbalances,[20] which can manifest in shortages and higher costs for Issuers.

[20] Golecha & Gan, 2016.

Risk Information: Seasonal snow limits logging and fuel-reduction activities at higher elevations during winter months, which can reduce biomass availability from November/December through February/March. However, lower-elevation areas remain accessible during this period and provide alternative harvest locations. Because logging contractors can shift operations geographically to manage these constraints, the risk of seasonal supply interruptions is considered low.
Raw Risk Likelihood (RRL) **Score** The risk likelihood is deemed low, therefore the RRL is 4 out of 10. **4**
Raw Risk Impact (RRI) **Score** The risk impact is deemed low, therefore the RRI is 4 out of 10. **4**
Gross Risk Indicator (GRI) **Score** The Gross Risk Indicator (RRL X RRI) is 16 out of 100. **16**
Mitigation/Notching **Notch** *RRL Mitigation (Notch)* **NN** No adjustment. *RRI Mitigation (Notch)* No adjustment. The Total Notch (RRL Notch) X (RRI Notch) is NN (No Notch).
Loaded RI Score **Score** The Loaded RI Score ((1-Total Notch) X GRI Score) is 16 out of 100. **16**

1.1.3 Year-to-Year Variation in Biomass Feedstock Availability

Rationale: Biomass can have significant year-to-year supply variations due to variability in yield from biomass harvesting operations.
Risk Information: Annual biomass availability is subject to significant variation, driven in part by changing harvest levels and wildfire impacts. Between 2016 and 2025, wildfires affected roughly half of the timberland in the Supply Zone, or about 1.4 million acres, underscoring the degree of year-to-year uncertainty. While salvage material can temporarily supplement supply after fire events, long-term planning remains more difficult. Therefore, a medium risk was assigned to this indicator.
Raw Risk Likelihood (RRL) **Score** The risk likelihood is deemed medium, therefore the RRL is 6 out of 10. **6**
Raw Risk Impact (RRI) **Score** The risk impact is deemed medium, therefore the RRI is 6 out of 10. **6**
Gross Risk Indicator (GRI) **Score** The Gross Risk Indicator (RRL X RRI) is 36 out of 100. **36**
Mitigation/Notching **Notch** *RRL Mitigation (Notch)* **NN** No adjustment. *RRI Mitigation (Notch)* No adjustment. The Total Notch (RRL Notch) X (RRI Notch) is NN (No Notch).
Loaded RI Score **Score** The Loaded RI Score ((1-Total Notch) X GRI Score) is 36 out of 100. **36**

1.1.4 Historical Biomass Feedstock Price Variations

Rationale: If the historical feedstock price shows volatility, then the risk of future price fluctuation is elevated. If feedstock prices have historically exceeded the price at which the Issuer would have to cease operations or breach a financial covenant (i.e., the "red line" feedstock cost), then mitigation measures should be put in place.

Risk Information: Historical Forisk price data for the US Northwest Region from 2014 to 2025 (Figure E-8) show that pulpwood and forest residue prices have fluctuated, with greater volatility in the last five years. This variability can complicate cost forecasting, financial modeling, and contract structuring for projects in the BDO Zone. At the same time, wildfire fuel-treatment material is expected to be more stable because its pricing is tied more closely to operating costs and program funding than to open-market demand. Overall, the risk to price predictability is low to medium.

Raw Risk Likelihood (RRL)	**Score**
The risk likelihood is deemed low, therefore the RRL is 4 out of 10.	**4**
Raw Risk Impact (RRI)	**Score**
The risk impact is deemed medium, therefore the RRI is 6 out of 10.	**6**
Gross Risk Indicator (GRI)	**Score**
The Gross Risk Indicator (RRL X RRI) is 24 out of 100.	**24**
Mitigation/Notching	**Notch**
RRL Mitigation (Notch) No adjustment. *RRI Mitigation (Notch)* No adjustment. The Total Notch (RRL Notch) X (RRI Notch) is NN (No Notch).	**NN**
Loaded RI Score	**Score**
The Loaded RI Score ((1-Total Notch) X GRI Score) is 24 out of 100.	**24**

1.2 Risk Factor: Harvest and Collection Risk

1.2.1 Biomass Feedstock Production Experience

Rationale: Risk is higher when suppliers have limited experience with planting, growing, harvesting, processing, and/or collecting biomass. Limited experience may be common for forest residue supply chains where forestry producers may have no previous experience.

Risk Information: The Supply Zone benefits from extensive experience in producing the rated feedstocks. Logging contractors, forest managers, and processing facilities are familiar with regional harvesting practices, quality requirements, and processing methods for these materials. Because the supply base is well established and operationally experienced, the risk associated with limited production experience is very low.

Raw Risk Likelihood (RRL)	**Score**
The risk likelihood is deemed very low, therefore the RRL is 2 out of 10.	**2**
Raw Risk Impact (RRI)	**Score**
The risk impact is deemed very low, therefore the RRI is 2 out of 10.	**2**
Gross Risk Indicator (GRI)	**Score**
The Gross Risk Indicator (RRL X RRI) is 4 out of 100.	**4**
Mitigation/Notching	**Notch**
RRL Mitigation (Notch) No adjustment. *RRI Mitigation (Notch)*	**NN**

No adjustment. The Total Notch (RRL Notch) X (RRI Notch) is NN (No Notch).
Loaded RI Score **Score** The Loaded RI Score ((1-Total Notch) X GRI Score) is 4 out of 100. **4**

1.2.2 Primary Product and Residue (or Secondary Transformation) Risks

Rationale: If the feedstock is a new/secondary product or a by-product, suppliers may either lack sufficient experience to mitigate risk or be unable to react to such risk. Secondary products or by-product producers may be less likely to prioritize production. For new product types, inexperience in planting, harvest, collection, and yield data may pose higher levels of risk. If the feedstock is a secondary transformation (i.e., forest residue), then production can be subject to variables beyond suppliers' control (e.g., changing demand for sawtimber).
Risk Information: The rated feedstocks are not new or unfamiliar products for regional suppliers. Because these materials are already part of established forestry operations, suppliers are not expected to face a meaningful learning curve in producing or handling them. This results in a very low risk for this indicator.
Raw Risk Likelihood (RRL) **Score** The risk likelihood is deemed very low, therefore the RRL is 2 out of 10. **2**
Raw Risk Impact (RRI) **Score** The risk impact is deemed very low, therefore the RRI is 2 out of 10. **2**
Gross Risk Indicator (GRI) **Score** The Gross Risk Indicator (RRL X RRI) is 4 out of 100. **4**
Mitigation/Notching **Notch** *RRL Mitigation (Notch)* **NN** No adjustment. *RRI Mitigation (Notch)* No adjustment. The Total Notch (RRL Notch) X (RRI Notch) is NN (No Notch).
Loaded RI Score **Score** The Loaded RI Score ((1-Total Notch) X GRI Score) is 4 out of 100. **4**

1.2.3 Harvest and Collection Practices and Schedules

Rationale: Differences in harvest timing and practices used can create risk to both the quantity and quality of feedstock. For example, feedstock harvested by different suppliers in different windows can undergo varying levels of exposure to sun, wind, and moisture, leading to variations in delivered feedstock quality. For forestry biomass, unsightly clear-cuts and slash piles (even on plantation forests and especially when located near communities) can provoke unwanted public backlash even when suitable and sustainable replanting regimes are followed.
Risk Information: Pulpwood and forest residue derived from salvage operations and wildfire fuel-reduction treatments can vary in quantity and quality, particularly when sourced across different elevations and forest types. Differences in harvest timing, processing methods, and field conditions can affect moisture, contamination, and fiber characteristics, which in turn can influence conversion performance and handling costs. Feedstock consistency presents a low-to-medium risk and will require stronger quality-control and logistics management than project proponents sometimes anticipate.
Raw Risk Likelihood (RRL) **Score** The risk likelihood is deemed low, therefore the RRL is 4 out of 10. **4**

Raw Risk Impact (RRI) The risk impact is deemed medium, therefore the RRI is 6 out of 10.	**Score** **6**
Gross Risk Indicator (GRI) The Gross Risk Indicator (RRL X RRI) is 24 out of 100.	**Score** **24**
Mitigation/Notching *RRL Mitigation (Notch)* No adjustment. *RRI Mitigation (Notch)* No adjustment. The Total Notch (RRL Notch) X (RRI Notch) is NN (No Notch).	**Notch** **NN**
Loaded RI Score The Loaded RI Score ((1-Total Notch) X GRI Score) is 24 out of 100.	**Score** **24**

1.2.4 Harvesting and Collection Equipment

Rationale: Different types of harvesting and collection equipment used by suppliers in a BDO Zone can have a significant impact on the quality and availability of feedstock. Using different types and combinations of harvesting, collection, and processing equipment among suppliers can lead to non-homogeneous feedstock. Equipment that is not designed specifically for biomass cultivation, harvesting, and collection can increase feedstock quality risks. Relevant equipment should be specified for the sake of product consistency and risk reduction.

Risk Information: Suppliers in the Supply Zone generally operate modern mechanized forestry equipment, including harvesters, skidders, processors, loaders, and high-productivity grinders. This equipment base supports efficient harvesting, collection, and processing consistent with the needs of prospective biomass projects. Although material from wildfire fuel treatments can be more contaminated than conventional roundwood-derived biomass, equipment-related risk remains low overall.

Raw Risk Likelihood (RRL) The risk likelihood is deemed low, therefore the RRL is 4 out of 10.	**Score** **4**
Raw Risk Impact (RRI) The risk impact is deemed low, therefore the RRI is 4 out of 10.	**Score** **4**
Gross Risk Indicator (GRI) The Gross Risk Indicator (RRL X RRI) is 16 out of 100.	**Score** **16**
Mitigation/Notching *RRL Mitigation (Notch)* No adjustment. *RRI Mitigation (Notch)* No adjustment. The Total Notch (RRL Notch) X (RRI Notch) is NN (No Notch).	**Notch** **NN**
Loaded RI Score The Loaded RI Score ((1-Total Notch) X GRI Score) is 16 out of 100.	**Score** **16**

1.2.5 Ownership/Control of Land

Rationale: Suppliers that own land or a production facility where feedstock is produced tend to have better control of supply chains and present lower degrees of supply risk.

Risk Information: Land in the Supply Zone is concentrated in public ownership, with the National Forest Service managing 65% of the area, private owners 34%, and state and other federal entities the remaining 1%. Even though private lands account for about 61% of timber removals and National Forest lands for the remaining 39%, the significant share of publicly controlled land introduces exposure to policy, permitting, and management changes. For this reason, this indicator is assessed as medium risk.
Raw Risk Likelihood (RRL) — **Score**
The risk likelihood is deemed medium, therefore the RRL is 6 out of 10. — **6**
Raw Risk Impact (RRI) — **Score**
The risk impact is deemed medium, therefore the RRI is 6 out of 10. — **6**
Gross Risk Indicator (GRI) — **Score**
The Gross Risk Indicator (RRL X RRI) is 36 out of 100. — **36**
Mitigation/Notching — **Notch**
RRL Mitigation (Notch) — **50%** Mitigated by the rated quantities of Pulpwood and Forest Residue which can be readily available from both public and private forestlands. Moreover, recent national and state legislative measures incentivize biomass harvesting in National and State forests, thus further reducing this risk. *RRI Mitigation (Notch)* No adjustment. The Total Notch (RRL Notch) X (RRI Notch) is 50%.
Loaded RI Score — **Score**
The Loaded RI Score ((1-Total Notch) X GRI Score) is 18 out of 100. — **18**

1.2.6 Variation in Feedstock Preparation or Densification Methods Among Different Suppliers

Rationale: The shape and density of the unit in which feedstock is supplied can impact feedstock cost and quality. Standard feedstock densification modes for biomass consist of round or square bales, pellets, cubes, chips, or grindings. The size of wood fiber processed in a grinder is less homogenous than if a chipper is used. Bales of different densities can absorb moisture at different rates. In certain cases, round bales have been viewed as problematic due to their uneven moisture content distribution.[21]
Risk Information: Biomass in the Supply Zone is produced in formats commonly accepted by regional wood-processing facilities, and no special densification methods are currently required. The reliance on conventional chipping and grinding supports consistency in handling and physical characteristics across suppliers. Some variation remains where wildfire fuel-treatment operations use different equipment and produce more variable material, but overall, the risk is low.
Raw Risk Likelihood (RRL) — **Score**
The risk likelihood is deemed low, therefore the RRL is 4 out of 10. — **4**
Raw Risk Impact (RRI) — **Score**
The risk impact is deemed low, therefore the RRI is 4 out of 10. — **4**
Gross Risk Indicator (GRI) — **Score**
The Gross Risk Indicator (RRL X RRI) is 16 out of 100. — **16**
Mitigation/Notching — **Notch**
RRL Mitigation (Notch) — **NN** No adjustment.

[21] Huhnke, 2018.

RRI Mitigation (Notch) No adjustment. The Total Notch (RRL Notch) X (RRI Notch) is NN (No Notch).
Loaded RI Score **Score** The Loaded RI Score ((1-Total Notch) X GRI Score) is 16 out of 100. **16**

1.3 Risk Factor: Existing Users

1.3.1 Existing User Locations

Rationale: Competitors' locations relative to siting locations within a BDO Zone can affect the viability of procuring feedstock and the cost of that feedstock. Accurate and detailed competitor mapping provides an understanding of a competitor's geographical influence on new plants within a BDO Zone, including competitive advantages such as short hauling.

Risk Information: There are 13 competitors in the Competition Zone (Map B-2) for sawmill residues and, potentially, for some pulpwood and forest residue volumes. However, only two CHP facilities are located relatively close to Taylorsville, and both rely exclusively on sawmill residues generated onsite. As a result, existing user locations are considered a low risk to the availability of the rated pulpwood and forest residue quantities for a new project.

Raw Risk Likelihood (RRL) **Score** The risk likelihood is deemed low, therefore the RRL is 4 out of 10. **4**
Raw Risk Impact (RRI) **Score** The risk impact is deemed low, therefore the RRI is 4 out of 10. **4**
Gross Risk Indicator (GRI) **Score** The Gross Risk Indicator (RRL X RRI) is 16 out of 100. **16**
Mitigation/Notching **Notch** *RRL Mitigation (Notch)* **NN** No adjustment. *RRI Mitigation (Notch)* No adjustment. The Total Notch (RRL Notch) X (RRI Notch) is NN (No Notch).
Loaded RI Score **Score** The Loaded RI Score ((1-Total Notch) X GRI Score) is 16 out of 100. **16**

1.3.2 Existing User Intake Quantities

Rationale: Clear understanding of feedstock consumption by key competitors for each rated feedstock type in the BDO Zone is essential to quantifying competitor risk. Understanding current consumption and historical trends of feedstock utilization can provide valuable information about feedstock price elasticity during shortages and insight into events that may impact future supply conditions. It can enable more accurate estimates of the sensitivity of feedstock availability to potential future consumption levels or the impact of external events (e.g., weather events, structural economic changes, seasonality, or policy change).

Risk Information: Based on the intake volumes summarized in Table B-4, current competitor consumption does not materially constrain access to the rated quantities of pulpwood and forest residue. Existing demand levels therefore present a low risk to feedstock availability for a new project.

Raw Risk Likelihood (RRL) **Score** The risk likelihood is deemed low, therefore the RRL is 4 out of 10. **4**

Raw Risk Impact (RRI) The risk impact is deemed low, therefore the RRI is 4 out of 10.	**Score** **4**
Gross Risk Indicator (GRI) The Gross Risk Indicator (RRL X RRI) is 16 out of 100.	**Score** **16**
Mitigation/Notching *RRL Mitigation (Notch)* No adjustment. *RRI Mitigation (Notch)* No adjustment. The Total Notch (RRL Notch) X (RRI Notch) is NN (No Notch).	**Notch** **NN**
Loaded RI Score The Loaded RI Score ((1-Total Notch) X GRI Score) is 16 out of 100.	**Score** **16**

1.3.3 Existing User Pricing and Price Sensitivity

Rationale: Understanding how much competitors pay (or receive) for different feedstock types is essential in determining the Issuer's competitiveness and accurately assessing the delivered cost range in the BDO Zone rating.

Current and historical prices paid/received by competitors provide insight into their procurement behaviors and exert pressure on suppliers in the BDO Zone, such as the ability/willingness to pay premiums for feedstock during times of feedstock shortage or reduce prices (or cut-off deliveries) during gluts. Competitors that have the ability to offer higher prices for feedstock during feedstock shortages can pose a significant risk to the Issuer.

Knowledge of competitor pricing and price sensitivity is also an essential prerequisite to formulating a feedstock cost curve, which can enable predictions of feedstock redundancy, i.e., how much feedstock could become available at different pricing levels.

Risk Information: Because there are no pulp and paper mills in the Competition Zone, market demand for pulpwood and forest residues is limited and these materials are often burned, masticated, or otherwise left in the harvest areas. Delivered pulpwood costs are estimated at $80 to $90 per bdt, while forest residues are estimated at $100 to $120 per bdt due to higher processing costs. Although current delivered economics often rely on state and federal support programs, competitive bidding pressure at these price levels is limited. Accordingly, the risk of market-driven price escalation from competing buyers is low.

Raw Risk Likelihood (RRL) The risk likelihood is deemed low, therefore the RRL is 4 out of 10.	**Score** **4**
Raw Risk Impact (RRI) The risk impact is deemed low, therefore the RRI is 4 out of 10.	**Score** **4**
Gross Risk Indicator (GRI) The Gross Risk Indicator (RRL X RRI) is 16 out of 100.	**Score** **16**
Mitigation/Notching *RRL Mitigation (Notch)* No adjustment. *RRI Mitigation (Notch)* No adjustment. The Total Notch (RRL Notch) X (RRI Notch) is NN (No Notch).	**Notch** **NN**

Loaded RI Score	Score
The Loaded RI Score ((1-Total Notch) X GRI Score) is 16 out of 100.	16

1.3.4 Impacts of Future Demand on Biomass Feedstock Availability and Price

Rationale: Feedstock utilization in a BDO Zone can change over time. Expansion of feedstock demand by current competitors can put additional pressure on feedstock and lead to higher prices, feedstock disruptions, shortages, supplier breaches, or other types of supply chain disruption.

If current markets for feedstock have been publicly signaling the potential for increased demand for feedstock (in the case of a sawmill adding a shift or pulp mill potentially expanding into the production of renewable chemicals, for example), high interest in a supply zone can make suppliers overconfident, leading to a supplier-controlled market where short-term contracting becomes the norm and supply chain reliability is compromised for the Issuer. If and when it occurs, increased demand on feedstock may decrease availability and increase cost for new plants within the BDO Zone.

Risk Information: No announced capacity expansions by existing competitors in the Supply Zone were identified. While future growth remains possible, particularly given public incentives and policy support for forest fuel-reduction activities, there is no current evidence of near-term demand expansion that would materially tighten supply. This indicator is therefore assessed as low risk.

Raw Risk Likelihood (RRL)	Score
The risk likelihood is deemed low, therefore the RRL is 4 out of 10.	4
Raw Risk Impact (RRI)	**Score**
The risk impact is deemed low, therefore the RRI is 4 out of 10.	4
Gross Risk Indicator (GRI)	**Score**
The Gross Risk Indicator (RRL X RRI) is 16 out of 100.	16
Mitigation/Notching	**Notch**
RRL Mitigation (Notch) No adjustment. *RRI Mitigation (Notch)* No adjustment. The Total Notch (RRL Notch) X (RRI Notch) is NN (No Notch).	NN
Loaded RI Score	**Score**
The Loaded RI Score ((1-Total Notch) X GRI Score) is 16 out of 100.	16

1.3.5 Soft Supply Influence of Existing Users

Rationale: In some cases, existing markets for feedstock may be able to exert high degrees of pressure over local suppliers, effectively enabling control of feedstock, especially during times of shortage. This control can derive from qualitative or "soft" factors, such as long previous relationships between local suppliers and existing markets for feedstock.

Risk Information: Some suppliers maintain longstanding relationships with existing biomass users, particularly CHP facilities and pellet mills located at or near supply sources. Those relationships can influence supplier priorities during periods of tight supply because they are reinforced by operating familiarity, payment history, and established quality expectations. However, this dynamic is less relevant to the rated pulpwood and forest residue volumes, which are presently often disposed of by onsite burning or mastication. The resulting risk is low.

Raw Risk Likelihood (RRL)	Score

The risk likelihood is deemed low, therefore the RRL is 4 out of 10.	**4**
Raw Risk Impact (RRI) The risk impact is deemed low, therefore the RRI is 4 out of 10.	**Score** **4**
Gross Risk Indicator (GRI) The Gross Risk Indicator (RRL X RRI) is 16 out of 100.	**Score** **16**
Mitigation/Notching *RRL Mitigation (Notch)* No adjustment. *RRI Mitigation (Notch)* No adjustment. The Total Notch (RRL Notch) X (RRI Notch) is NN (No Notch).	**Notch** **NN**
Loaded RI Score The Loaded RI Score ((1-Total Notch) X GRI Score) is 16 out of 100.	**Score** **16**

1.3.6 Temporary Externality-Driven Markets for Biomass Feedstock

Rationale: Alternative, non-traditional, externality-driven competitors for feedstock can drive feedstock demand (and cost) in unusual circumstances.

Risk Information: No evidence was found of temporary or nontraditional markets that could create short-term competition for woody biomass in the Supply Zone. In the absence of such externality-driven demand, the risk of sudden supply tightening or price spikes is low.

Raw Risk Likelihood (RRL) The risk likelihood is deemed very low, therefore the RRL is 2 out of 10.	**Score** **2**
Raw Risk Impact (RRI) The risk impact is deemed very low, therefore the RRI is 2 out of 10.	**Score** **2**
Gross Risk Indicator (GRI) The Gross Risk Indicator (RRL X RRI) is 4 out of 100.	**Score** **4**
Mitigation/Notching *RRL Mitigation (Notch)* No adjustment. *RRI Mitigation (Notch)* No adjustment. The Total Notch (RRL Notch) X (RRI Notch) is NN (No Notch).	**Notch** **NN**
Loaded RI Score The Loaded RI Score ((1-Total Notch) X GRI Score) is 4 out of 100.	**Score** **4**

1.3.7 Relative Inventory Capacity of Existing Users

Rationale: The more inventory a competing biomass facility is able to store, the more competitive pressure it can exert on supply. The ability to store large inventories allows competitors to purchase inventory when the prices are low, potentially giving it an economic advantage. Additionally, the ability to store inventory during feedstock supply surpluses can enable competitors to continue to intake feedstock when the Issuer's plant (with lesser inventory capacity) may be forced to put suppliers on quota. Larger inventory capacity on the part of competing markets creates supplier loyalty and can make it more difficult for new projects to secure supply without paying a significant premium.

Risk Information: Existing pellet mills and bioenergy facilities reportedly have substantial storage capacity for wood chips, hog fuel, and logs, which could strengthen their market position under some conditions. Even so, the large underlying availability of pulpwood and forest residues for a new project reduces the competitive effect of that storage advantage. This indicator is therefore considered low risk.
Raw Risk Likelihood (RRL) **Score** The risk likelihood is deemed low, therefore the RRL is 4 out of 10. **4**
Raw Risk Impact (RRI) **Score** The risk impact is deemed low, therefore the RRI is 4 out of 10. **4**
Gross Risk Indicator (GRI) **Score** The Gross Risk Indicator (RRL X RRI) is 16 out of 100. **16**
Mitigation/Notching **Notch** *RRL Mitigation (Notch)* **NN** No adjustment. *RRI Mitigation (Notch)* No adjustment. The Total Notch (RRL Notch) X (RRI Notch) is NN (No Notch).
Loaded RI Score **Score** The Loaded RI Score ((1-Total Notch) X GRI Score) is 16 out of 100. **16**

1.3.8 Relative Accessibility/Delivery Hours and Wait Times

Rationale: The value attributed by suppliers to local competing markets for biomass is often directly related to the degree of flexibility the market provides in terms of delivery hours and the more efficient discharge can occur.
Risk Information: Interviewed loggers and forestry experts did not identify delivery constraints, access limitations, or excessive wait times as significant concerns for small-diameter logs or hog fuel in the region. Relative market accessibility therefore presents a low risk to procurement.
Raw Risk Likelihood (RRL) **Score** The risk likelihood is deemed low, therefore the RRL is 4 out of 10. **4**
Raw Risk Impact (RRI) **Score** The risk impact is deemed low, therefore the RRI is 4 out of 10. **4**
Gross Risk Indicator (GRI) **Score** The Gross Risk Indicator (RRL X RRI) is 16 out of 100. **16**
Mitigation/Notching **Notch** *RRL Mitigation (Notch)* **NN** No adjustment. *RRI Mitigation (Notch)* No adjustment. The Total Notch (RRL Notch) X (RRI Notch) is NN (No Notch).
Loaded RI Score **Score** The Loaded RI Score ((1-Total Notch) X GRI Score) is 16 out of 100. **16**

1.3.9 Relative Specification Advantages

Rationale: When choosing a market for biomass feedstock, suppliers not only look at price but also at relative quality requirements or specifications. It is important to understand feedstock quality specifications for competing markets within the BDO Zone in order to accurately quantify the risk that competitors can exert on the Issuer's supply chain.

Risk Information: Regional competitors are understood to maintain established, relatively high feedstock quality specifications, which provides suppliers with a clear understanding of acceptable material characteristics. A new project should be able to adopt comparable standards without suffering a competitive disadvantage based on quality specifications. Accordingly, the risk associated with relative specification advantages is low.

Raw Risk Likelihood (RRL)	**Score**
The risk likelihood is deemed low, therefore the RRL is 4 out of 10.	**4**
Raw Risk Impact (RRI)	**Score**
The risk impact is deemed low, therefore the RRI is 4 out of 10.	**4**
Gross Risk Indicator (GRI)	**Score**
The Gross Risk Indicator (RRL X RRI) is 16 out of 100.	**16**
Mitigation/Notching	**Notch**
RRL Mitigation (Notch) No adjustment. *RRI Mitigation (Notch)* No adjustment. The Total Notch (RRL Notch) X (RRI Notch) is NN (No Notch).	**NN**
Loaded RI Score	**Score**
The Loaded RI Score ((1-Total Notch) X GRI Score) is 16 out of 100.	**16**

1.4 Risk Factor: Transportation

1.4.1 Biomass Feedstock Transportation Costs

Rationale: Transportation can be one of the most significant cost components of biomass supply chains. The average transport cost and percentage of total feedstock cost attributable to transport should be known.

Transport distances of 50-75 miles for biomass feedstocks are typical, but larger distances can be common. Where the average transport distance from suppliers to Issuers is high, the supply chain is subject to greater sensitivities to risks, such as increases in diesel cost, weather impacts, mechanical breakdown, and the demand for scarce feedstock from competitors closer to the source.

Understanding average transport distance can help flag higher-risk BDO Zones where transport distance materially exceeds the average.

Risk Information: Transportation accounts for an estimated 20% to 50% of delivered biomass cost, depending on feedstock type, haul distance, and local market conditions. The rated volumes can be sourced from within 50 miles (Figure E-6), which is consistent with common industry transport ranges for biomass. Because transport distances remain manageable, transportation cost risk is considered low.

Raw Risk Likelihood (RRL)	**Score**
The risk likelihood is deemed low, therefore the RRL is 4 out of 10.	**4**
Raw Risk Impact (RRI)	**Score**
The risk impact is deemed low, therefore the RRI is 4 out of 10.	**4**
Gross Risk Indicator (GRI)	**Score**

The Gross Risk Indicator (RRL X RRI) is 16 out of 100.	**16**
Mitigation/Notching *RRL Mitigation (Notch)* No adjustment. *RRI Mitigation (Notch)* No adjustment. The Total Notch (RRL Notch) X (RRI Notch) is NN (No Notch).	**Notch** **NN**
Loaded RI Score The Loaded RI Score ((1-Total Notch) X GRI Score) is 16 out of 100.	**Score** **16**

1.4.2 Ownership/Control of Transportation/Logistics

Rationale: In most cases, suppliers that own or lease transportation equipment necessary to transport biomass from forests or fields are at lower risk than those that do not. However, in some circumstances, reliance on third parties to transport biomass is common practice and does not contribute to risk.

Risk Information: Many loggers in the Supply Zone own trucks and can use them to meet delivery obligations directly. When additional hauling capacity is needed, they commonly supplement their fleets with hired drivers or independent owner-operators. This combination of owned and available third-party capacity supports reliable logistics, resulting in a low-risk rating.

Raw Risk Likelihood (RRL) The risk likelihood is deemed low, therefore the RRL is 4 out of 10.	**Score** **4**
Raw Risk Impact (RRI) The risk impact is deemed low, therefore the RRI is 4 out of 10.	**Score** **4**
Gross Risk Indicator (GRI) The Gross Risk Indicator (RRL X RRI) is 16 out of 100.	**Score** **16**
Mitigation/Notching *RRL Mitigation (Notch)* No adjustment. *RRI Mitigation (Notch)* No adjustment. The Total Notch (RRL Notch) X (RRI Notch) is NN (No Notch).	**Notch** **NN**
Loaded RI Score The Loaded RI Score ((1-Total Notch) X GRI Score) is 16 out of 100.	**Score** **16**

1.4.3 Transportation of Biomass Feedstock Requires Specialized Equipment and Specialized Operator Training

Rationale: Requirements for specialized transport equipment (e.g., walking-floor trailers) can increase supply chain risk. Where there is low availability of required transportation equipment, equipment owners have increased leverage over transportation prices, and supply chain resiliency can be lower.

Risk Information: Meeting the rated supply volumes will require approximately 13 logging trucks and 8 additional chip-van trailers, as described in Section B – Operational Considerations. Outreach indicates that equipment in these quantities is available within the region. As a result, the need for specialized transport equipment and operators is considered a low risk.

Raw Risk Likelihood (RRL) The risk likelihood is deemed low, therefore the RRL is 4 out of 10.	**Score** **4**

Raw Risk Impact (RRI) The risk impact is deemed low, therefore the RRI is 4 out of 10.	**Score** **4**
Gross Risk Indicator (GRI) The Gross Risk Indicator (RRL X RRI) is 16 out of 100.	**Score** **16**
Mitigation/Notching *RRL Mitigation (Notch)* No adjustment. *RRI Mitigation (Notch)* No adjustment. The Total Notch (RRL Notch) X (RRI Notch) is NN (No Notch).	**Notch** **NN**
Loaded RI Score The Loaded RI Score ((1-Total Notch) X GRI Score) is 16 out of 100.	**Score** **16**

1.4.4 Delivery Routes Through Local Communities

Rationale: Transportation of biomass can become a nuisance to local communities, especially if a large number of trucks pass through residential and school areas. Local communities often have the power to force regulations regarding truck transport, impeding the ability of BDO Zone suppliers to transport feedstock.

Risk Information: Taylorsville is located in a forestry-oriented region where forest biomass utilization generally aligns with local economic activity and wildfire-risk reduction objectives. Given that context, increased truck traffic is unlikely to generate substantial community opposition. The risk associated with delivery routes through local communities is therefore low.

Raw Risk Likelihood (RRL) The risk likelihood is deemed low, therefore the RRL is 4 out of 10.	**Score** **4**
Raw Risk Impact (RRI) The risk impact is deemed low, therefore the RRI is 4 out of 10.	**Score** **4**
Gross Risk Indicator (GRI) The Gross Risk Indicator (RRL X RRI) is 16 out of 100.	**Score** **16**
Mitigation/Notching *RRL Mitigation (Notch)* No adjustment. *RRI Mitigation (Notch)* No adjustment. The Total Notch (RRL Notch) X (RRI Notch) is NN (No Notch).	**Notch** **NN**
Loaded RI Score The Loaded RI Score ((1-Total Notch) X GRI Score) is 16 out of 100.	**Score** **16**

1.4.5 Transportation Regulations and Local Weight Limits

Rationale: In many BDO Zones, transportation is regulated based on seasonal road conditions. These regulations (e.g., "frost laws") often take the form of weight restrictions or limits on the number of trucks allowed on roads. Such regulations can impede the project's ability to source sufficient feedstock or increase the cost of doing so at certain times of the year.

Risk Information: Seasonal road restrictions and weight limits are enforced in the region, especially in mountainous areas during wet or snowy conditions. In addition, some forest roads may require upgrades to accommodate heavier

or more frequent truck traffic. These constraints can limit seasonal access or require longer routes, increasing delivery complexity and costs. For these reasons, this indicator is assessed as medium risk.

Raw Risk Likelihood (RRL)	**Score**
The risk likelihood is deemed medium, therefore the RRL is 6 out of 10.	**6**
Raw Risk Impact (RRI)	**Score**
The risk impact is deemed medium, therefore the RRI is 6 out of 10.	**6**
Gross Risk Indicator (GRI)	**Score**
The Gross Risk Indicator (RRL X RRI) is 36 out of 100.	**36**
Mitigation/Notching	**Notch**
RRL Mitigation (Notch) No adjustment. *RRI Mitigation (Notch)* No adjustment. The Total Notch (RRL Notch) X (RRI Notch) is NN (No Notch).	**NN**
Loaded RI Score	**Score**
The Loaded RI Score ((1-Total Notch) X GRI Score) is 36 out of 100.	**36**

1.4.6 Road Infrastructure

Rationale: Feedstock cost and availability can be a function of road infrastructure, in particular the accessibility the infrastructure provides to feedstock. Issues with road networks will translate directly to risks to feedstock supply.

Risk Information: Road access supports ongoing fuel-reduction work across the Supply Zone, but many resource roads have tight curves that restrict the use of longer trailers and chip vans typically preferred for biomass transport. Although short-log removal is less affected, these physical limitations can reduce recovery efficiency and increase hauling costs from certain areas. The resulting impact on feedstock accessibility is characterized as medium risk.

Raw Risk Likelihood (RRL)	**Score**
The risk likelihood is deemed medium, therefore the RRL is 6 out of 10.	**6**
Raw Risk Impact (RRI)	**Score**
The risk impact is deemed medium, therefore the RRI is 6 out of 10.	**6**
Gross Risk Indicator (GRI)	**Score**
The Gross Risk Indicator (RRL X RRI) is 36 out of 100.	**36**
Mitigation/Notching	**Notch**
RRL Mitigation (Notch) No adjustment. *RRI Mitigation (Notch)* No adjustment. The Total Notch (RRL Notch) X (RRI Notch) is NN (No Notch).	**NN**
Loaded RI Score	**Score**
The Loaded RI Score ((1-Total Notch) X GRI Score) is 36 out of 100.	**36**

1.4.7 Transportation Redundancy

Rationale: Transport equipment redundancy is important for dealing with seasonally variable feedstock supplies as well as the risk of equipment breakdowns.

Risk Information: Supplying the rated volumes will require 13 logging trucks and 8 additional chip vans, and research indicates that sufficient equipment exists in the Supply Zone to meet that need. Because adequate transport redundancy appears to be available for the rated quantities, this indicator is considered very low risk.
Raw Risk Likelihood (RRL) **Score** The risk likelihood is deemed very low, therefore the RRL is 2 out of 10. **2**
Raw Risk Impact (RRI) **Score** The risk impact is deemed very low, therefore the RRI is 2 out of 10. **2**
Gross Risk Indicator (GRI) **Score** The Gross Risk Indicator (RRL X RRI) is 4 out of 100. **4**
Mitigation/Notching **Notch** *RRL Mitigation (Notch)* **NN** No adjustment. *RRI Mitigation (Notch)* No adjustment. The Total Notch (RRL Notch) X (RRI Notch) is NN (No Notch).
Loaded RI Score **Score** The Loaded RI Score ((1-Total Notch) X GRI Score) is 4 out of 100. **4**

1.5 Risk Factor: Risks Related to Supply Chain Resiliency

1.5.1 Size, Number, and Location of Suppliers

Rationale: In general, a supply portfolio involving multiple suppliers of various sizes (and from multiple BDO Zones) is important for ensuring steady and uninterrupted feedstock supply with minimal price fluctuations. If a small number of large suppliers provides a high proportion of total feedstock, a disruption or supplier breach will have greater impact on the supply chain. In such cases the risk of disruption is lower, but the impact of those disruptions is higher. Conversely, many small suppliers are less likely to have the capacity to withstand internal disruptions and thus may be more likely to breach. Here, risk of disruption is higher, but their likely impact is lower. The number of suppliers as well as the ratio of small to large suppliers should be optimized. There is no pre-determined number or optimal ratio of suppliers, although having too many or too few can both pose higher degrees of risk.
Risk Information: The Supply Zone includes numerous logging operations, many of which are already active in fuel-reduction work. This broad supplier base provides geographic and operational diversity relative to the rated quantities, reducing dependence on any single supplier or group of suppliers. Accordingly, the risk associated with supplier size, number, and location is very low.
Raw Risk Likelihood (RRL) **Score** The risk likelihood is deemed very low, therefore the RRL is 2 out of 10. **2**
Raw Risk Impact (RRI) **Score** The risk impact is deemed very low, therefore the RRI is 2 out of 10. **2**
Gross Risk Indicator (GRI) **Score** The Gross Risk Indicator (RRL X RRI) is 4 out of 100. **4**
Mitigation/Notching **Notch** *RRL Mitigation (Notch)* **NN** No adjustment. *RRI Mitigation (Notch)* No adjustment.

The Total Notch (RRL Notch) X (RRI Notch) is NN (No Notch).
Loaded RI Score — **Score**
The Loaded RI Score ((1-Total Notch) X GRI Score) is 4 out of 100. — **4**

1.5.2 Suppliers Subject to Same External Risk Factors

Rationale: When a single risk event can impact the feedstock production ability of all (or most) suppliers, then feedstock risk is higher and supply chain resiliency is lower. Resilience is maximized when biomass supply chains exhibit diversity in spatial location (i.e., geography), production practices, and other elements of supply chain structures such that the impact of single high-risk events has varying impacts on suppliers.

Risk Information: Many suppliers in the region are exposed to the same underlying market and policy conditions, including sawlog availability, housing and lumber market fluctuations, and public funding for forest restoration and salvage work. Because these common drivers can affect multiple suppliers at the same time, supplier diversification does not fully eliminate exposure. Over a 20-year horizon, especially given uncertainty around long-term government support, this indicator represents a medium risk.

Raw Risk Likelihood (RRL) — **Score**
The risk likelihood is deemed medium, therefore the RRL is 6 out of 10. — **6**
Raw Risk Impact (RRI) — **Score**
The risk impact is deemed medium, therefore the RRI is 6 out of 10. — **6**
Gross Risk Indicator (GRI) — **Score**
The Gross Risk Indicator (RRL X RRI) is 36 out of 100. — **36**
Mitigation/Notching — **Notch**
RRL Mitigation (Notch) — **NN**
No adjustment.
RRI Mitigation (Notch)
No adjustment.
The Total Notch (RRL Notch) X (RRI Notch) is NN (No Notch).
Loaded RI Score — **Score**
The Loaded RI Score ((1-Total Notch) X GRI Score) is 36 out of 100. — **36**

1.6 Risk Factor: Biomass Feedstock Scale-up

1.6.1 Capacity of Supply Chain Components and Infrastructure to Scale

Rationale: Scale-up risk increases if supply chain components or underlying feedstock infrastructure necessary for these components cannot scale to handle Issuer feedstock requirements and throughput capacity. Capacity to scale should be demonstrated.

Risk Information: Section B – Operational Considerations indicates that current harvesting, collection, preprocessing, and transportation capacity is sufficient to produce and deliver the rated feedstock volumes. No major infrastructure expansion appears necessary to meet those quantities. Scale-up risk for the rated case is therefore very low.

Raw Risk Likelihood (RRL) — **Score**
The risk likelihood is deemed very low, therefore the RRL is 2 out of 10. — **2**
Raw Risk Impact (RRI) — **Score**
The risk impact is deemed very low, therefore the RRI is 2 out of 10. — **2**
Gross Risk Indicator (GRI) — **Score**
The Gross Risk Indicator (RRL X RRI) is 4 out of 100. — **4**
Mitigation/Notching — **Notch**

RRL Mitigation (Notch) No adjustment. *RRI Mitigation (Notch)* No adjustment. The Total Notch (RRL Notch) X (RRI Notch) is NN (No Notch).	**NN**
Loaded RI Score The Loaded RI Score ((1-Total Notch) X GRI Score) is 4 out of 100.	**Score** **4**

1.6.2 Availability of Labor for Biomass Feedstock Production

Rationale: Skilled labor shortages can be difficult to remedy in the short term. The availability of suitable labor in an area can impact the ability to procure sufficient feedstock quantities on required schedules. Labor risks are higher where supply chains are not yet active or for Issuers for whom large feedstock requirements or the development of new (or expanded) supply chains demand significant additions to the local labor force.

Risk Information: The regional forestry workforce is aging, younger worker entry is limited, and truck-driver availability is a known concern. These trends create some long-term uncertainty for labor supply, even though near-term shortages are not expected to constrain initial project operations. Existing workforce-development programs[22] may help offset attrition over time. Overall, this indicator is assessed as low to medium risk.

Raw Risk Likelihood (RRL) The risk likelihood is deemed low, therefore the RRL is 4 out of 10.	**Score** **4**
Raw Risk Impact (RRI) The risk impact is deemed medium, therefore the RRI is 6 out of 10.	**Score** **6**
Gross Risk Indicator (GRI) The Gross Risk Indicator (RRL X RRI) is 24 out of 100.	**Score** **24**
Mitigation/Notching *RRL Mitigation (Notch)* No adjustment. *RRI Mitigation (Notch)* No adjustment. The Total Notch (RRL Notch) X (RRI Notch) is NN (No Notch).	**Notch** **NN**
Loaded RI Score The Loaded RI Score ((1-Total Notch) X GRI Score) is 24 out of 100.	**Score** **24**

1.6.3 Low Historical Demand for Biomass Feedstock in the Supply Zone

Rationale: If Issuer BDO Zone does not have a history of developed large-scale feedstock procurement, suppliers may not have sufficient expertise in feedstock production to ensure reliable supply, especially in the early years. This can be particularly true for forest residues, where, typically, the infrastructure for collection, processing, and delivery is immature.

Where supply chains are not well-established, risk can be mitigated when new bio-based plants control a higher degree of feedstock processing. For example, if a BDO Zone rating is issued for clean wood chips and the historical demand in

[22] Several funding programs aim at improving the availability of workforce in the forest sector, including CAL FIRE Wood Products and Bioenergy Business and Workforce Development Grants, California Conservation Corps (CCC) Forestry Corps Grant Program, California Resilient Careers in Forestry (by U.S. Economic Development Administration).

the Zone has been exclusively for pulpwood, then supply chain risk will be decreased for new bio-based plants that intake pulpwood and manage log debarking and chipping internally, rather than requiring inexperienced suppliers to deliver debarked wood chips.

Risk Information: The Supply Zone has a meaningful history of producing and delivering the rated quantities of pulpwood and forest residues, indicating that the relevant supply chains are already established. This prior market experience reduces uncertainty around supplier capabilities, logistics, and ramp-up requirements for a new project. As a result, the risk related to low historical demand is low.

Raw Risk Likelihood (RRL)	**Score**
The risk likelihood is deemed low, therefore the RRL is 4 out of 10.	**4**
Raw Risk Impact (RRI)	**Score**
The risk impact is deemed low, therefore the RRI is 4 out of 10.	**4**
Gross Risk Indicator (GRI)	**Score**
The Gross Risk Indicator (RRL X RRI) is 16 out of 100.	**16**
Mitigation/Notching	**Notch**
RRL Mitigation (Notch) No adjustment. *RRI Mitigation (Notch)* No adjustment. The Total Notch (RRL Notch) X (RRI Notch) is NN (No Notch).	**NN**
Loaded RI Score	**Score**
The Loaded RI Score ((1-Total Notch) X GRI Score) is 16 out of 100.	**16**

1.7 Risk Factor: Climate and Natural Risks

1.7.1 Seasonal Weather Impacts on Biomass Feedstock Supply

Rationale: Seasonal weather impacts are defined as those deriving from natural weather variations (e.g., spring thaws, rainy seasons, or dry seasons—as opposed to singular weather events like fires, droughts, or hurricanes). Seasonal weather changes can be a significant risk factor affecting feedstock availability, quality, and price.

Given the significant influence that weather has on multiple aspects of growing, harvesting, and transporting biomass, it is difficult to predict the availability of biomass at a specific location at different points in the future with a high degree of certainty. However, it is still possible, using past data and statistical models, to generate reasonable upper/lower bound estimates of biomass production in any given year in a wider supply zone. Such estimates are essential in assessing feedstock risk and enable accurate assessment of the efficacy of the Issuer's mitigation methods.

Risk Information: Seasonal weather has only a limited effect on biomass harvesting in the Supply Zone. Snow can constrain operations at higher elevations and wet conditions can reduce access on poorly drained sites, but these issues are typically managed by shifting work to more accessible areas. Given the region's varied topography and complementary harvest windows, the risk from normal seasonal weather patterns is low.

Raw Risk Likelihood (RRL)	**Score**
The risk likelihood is deemed low, therefore the RRL is 4 out of 10.	**4**
Raw Risk Impact (RRI)	**Score**
The risk impact is deemed low, therefore the RRI is 4 out of 10.	**4**
Gross Risk Indicator (GRI)	**Score**
The Gross Risk Indicator (RRL X RRI) is 16 out of 100.	**16**
Mitigation/Notching	**Notch**

RRL Mitigation (Notch) No adjustment. *RRI Mitigation (Notch)* No adjustment. The Total Notch (RRL Notch) X (RRI Notch) is NN (No Notch).	**NN**
Loaded RI Score The Loaded RI Score ((1-Total Notch) X GRI Score) is 16 out of 100.	**Score** **16**

1.7.2 Long-Term Weather and Climate Trends

Rationale: In certain BDO Zones, climatic trends and significant potential changes to future weather patterns can create feedstock risk.

Risk Information: Long-term climate trends in the region, including drought, temperature change, heavier rainfall events, and associated increases in tree mortality, are expected to affect forest productivity and access over time.[23] These conditions can increase insect and disease pressure, raise fire hazard, and make some post-fire areas unsuitable for biomass recovery because of erosion or landslide risk. Although fuel-mitigation activity may offset part of the effect on long-term supply security, the underlying risk to sustainable biomass availability is high.

Raw Risk Likelihood (RRL) The risk likelihood is deemed high, therefore the RRL is 8 out of 10.	**Score** **8**
Raw Risk Impact (RRI) The risk impact is deemed high, therefore the RRI is 8 out of 10.	**Score** **8**
Gross Risk Indicator (GRI) The Gross Risk Indicator (RRL X RRI) is 64 out of 100.	**Score** **64**
Mitigation/Notching *RRL Mitigation (Notch)* To mitigate these climate trends, a new project in Taylorsville will absorb biomass from forest restoration and fire remediation activities that reduce this risk. *RRI Mitigation (Notch)* No adjustment. The Total Notch (RRL Notch) X (RRI Notch) is 50%.	**Notch** **50%**
Loaded RI Score The Loaded RI Score ((1-Total Notch) X GRI Score) is 32 out of 100.	**Score** **32**

1.7.3 Forest Fire

Rationale: Forest fires, especially when occurring on a large scale, destroy feedstock and create shortages. Fire-prone conditions are predicted to increase across North America. This could potentially result in a doubling of the amount of area burned by the end of this century compared with amounts burned in recent decades. Boreal forests, which have been historically greatly influenced by fire, will likely be especially affected by this change.

Other climate change impacts that could add damaged or dead wood to the forest fuel load (e.g., as a result of insect outbreaks, ice storms, or high winds) may increase the risk of fire activity. New research is aimed at refining these climate change estimates of fire activity and investigating adaptation strategies and options to deal with future fire occurrences. There is growing consensus that as wildfire activity increases, fire agency suppression efforts will be

[23] Sierra Business Council, The Forest Management Opportunity Final Report (2022)

increasingly strained. However, analyses of fire history suggest that the effect of climate variability on precipitation regimes is the primary reason for the decreasing fire activity.

Risk Information: The Supply Zone is identified by CAL FIRE as having very high wildfire risk, and the relevant sourcing areas include moderate, high, and very high Fire Hazard Severity Zones. [24] Wildfire therefore poses a direct and severe threat to supply continuity, forest productivity, and long-term resource availability. While burned stands may temporarily generate salvage volumes, large fire events can remove extensive acreage from production for prolonged periods. This indicator is appropriately rated very high risk.

Raw Risk Likelihood (RRL)	**Score**
The risk likelihood is deemed very high, therefore the RRL is 10 out of 10.	**10**
Raw Risk Impact (RRI)	**Score**
The risk impact is deemed very high, therefore the RRI is 10 out of 10.	**10**
Gross Risk Indicator (GRI)	**Score**
The Gross Risk Indicator (RRL X RRI) is Choose	**100**
Mitigation/Notching *RRL Mitigation (Notch)* To mitigate these climate trends, a new project in Taylorsville will absorb biomass from forest restoration and fire remediation activities that reduce this risk. *RRI Mitigation (Notch)* No adjustment. The Total Notch (RRL Notch) X (RRI Notch) is 50%.	**Notch** **50%**
Loaded RI Score	**Score**
The Loaded RI Score ((1-Total Notch) X GRI Score) is 50 out of 100.	**50**

1.7.4 Risk of Infestation

Rationale: Risk of future infestation, including its estimated consequences on feedstock supply, should be calculated into the overall risk profile.

Since forest insect populations are influenced by environmental conditions, future changes in climate can be expected to significantly alter the outbreak dynamics of certain forest insect species. In some cases, larger and more frequent insect outbreaks may occur, but in other cases, recurring outbreaks may be disrupted or diminished. As the climate continues to change, we can expect more situations, particularly at the margins of tree ranges, where sub-optimal conditions for tree growth and reduced tree vigor can lead to outbreaks of forest insects.

Risk Information: Drought stress and wildfire impacts have increased the vulnerability of California forests to bark beetles and other wood-boring insects. These infestations can weaken or kill trees, reducing long-term forest productivity and creating uncertainty around future biomass supply, even though they may also create short-term salvage opportunities. Given the growing frequency and severity of pest pressure, this indicator represents a medium risk.

Raw Risk Likelihood (RRL)	**Score**
The risk likelihood is deemed medium, therefore the RRL is 6 out of 10.	**6**
Raw Risk Impact (RRI)	**Score**
The risk impact is deemed medium, therefore the RRI is 6 out of 10.	**6**
Gross Risk Indicator (GRI)	**Score**

[24] "Fire Hazard Severity Zones." Accessed March 31,2026. https://osfm.fire.ca.gov/what-we-do/community-wildfire-preparedness-and-mitigation/fire-hazard-severity-zones.

The Gross Risk Indicator (RRL X RRI) is 36 out of 100.	**36**
Mitigation/Notching *RRL Mitigation (Notch)* No adjustment. *RRI Mitigation (Notch)* No adjustment. The Total Notch (RRL Notch) X (RRI Notch) is NN (No Notch).	**Notch** **NN**
Loaded RI Score The Loaded RI Score ((1-Total Notch) X GRI Score) is 36 out of 100.	**Score** **36**

1.7.5 Risk of Hail

Rationale: There is much uncertainty about the effects of anthropogenic climate change on the frequency and severity of extreme weather events like hailstorms and their subsequent economic losses. Some studies indicate a strong positive relationship between hailstorm activity and hailstorm damage, as predicted by minimum temperatures using simple correlations. This relationship suggests that hailstorm damage may increase in the future if global warming leads to further temperature increases.

Risk Information: Hail is not considered a relevant risk factor for this BDO Zone.

Raw Risk Likelihood (RRL) The risk likelihood is deemed not relevant, therefore the RRL is not rated (NR).	**Score** **NR**
Raw Risk Impact (RRI) The risk impact is deemed not relevant, therefore the RRI is not rated (NR).	**Score** **NR**
Gross Risk Indicator (GRI) The Gross Risk Indicator (RRL X RRI) is not rated (NR).	**Score** **NR**
Mitigation/Notching *RRL Mitigation (Notch)* No adjustment. *RRI Mitigation (Notch)* No adjustment. The Total Notch (RRL Notch) X (RRI Notch) is not rated (NR).	**Notch** **NR**
Loaded RI Score The Loaded RI Score ((1-Total Notch) X GRI Score) is not rated (NR).	**Score** **NR**

1.7.6 Risk of Flood

Rationale: Floods can cause catastrophic disruption and delay in feedstock supply. Where there is a high risk of flood and thus a negative impact on feedstock supply, the BDO Zone rating should account for this risk.

Risk Information: Regional topography generally supports good drainage, which limits broad flood exposure across the Supply Zone. Although isolated flooding or road washouts may occasionally disrupt access during extreme precipitation events, those effects are usually localized and temporary and can be managed through route flexibility and normal operational planning. The resulting risk to biomass supply is low.

Raw Risk Likelihood (RRL) The risk likelihood is deemed low, therefore the RRL is 4 out of 10.	**Score** **4**
Raw Risk Impact (RRI) The risk impact is deemed low, therefore the RRI is 4 out of 10.	**Score** **4**

Gross Risk Indicator (GRI)	Score
The Gross Risk Indicator (RRL X RRI) is 16 out of 100.	16
Mitigation/Notching	**Notch**
RRL Mitigation (Notch) No adjustment. *RRI Mitigation (Notch)* No adjustment. The Total Notch (RRL Notch) X (RRI Notch) is NN (No Notch).	NN
Loaded RI Score	**Score**
The Loaded RI Score ((1-Total Notch) X GRI Score) is 16 out of 100.	16

1.7.7 Risk of Drought

Rationale: Droughts can cause significant disruptions to feedstock supplies across entire BDO Zones for extended periods of time. Tree species are adapted to specific moisture conditions. Having less water available through drought has a range of negative impacts on the health of forest ecosystems. Direct impacts include reduced growth, increased tree mortality, and failure to regenerate. Indirect impacts include reduced ability to defend against insects and disease and increased fire risk. These impacts can affect the availability of wood fiber for an Issuer.

Risk Information: Drought is a recurring feature in the Supply Zone and has been evident in multiple abnormally dry years over the past decade. Extended dry conditions reduce growth, increase mortality, and heighten exposure to pests and wildfire, all of which can affect both the quantity and quality of future biomass supply. On that basis, drought represents a medium risk.

Raw Risk Likelihood (RRL)	Score
The risk likelihood is deemed medium, therefore the RRL is 6 out of 10.	6
Raw Risk Impact (RRI)	**Score**
The risk impact is deemed medium, therefore the RRI is 6 out of 10.	6
Gross Risk Indicator (GRI)	**Score**
The Gross Risk Indicator (RRL X RRI) is 36 out of 100.	36
Mitigation/Notching	**Notch**
RRL Mitigation (Notch) No adjustment. *RRI Mitigation (Notch)* No adjustment. The Total Notch (RRL Notch) X (RRI Notch) is NN (No Notch).	NN
Loaded RI Score	**Score**
The Loaded RI Score ((1-Total Notch) X GRI Score) is 36 out of 100.	36

1.7.8 Risk of Hurricanes, Tornadoes, and Strong Winds

Rationale: Hurricanes, tornadoes, and strong winds can destroy timber stands and feedstock piles. They can also delay forestry operations. Hurricanes and tornadoes can indirectly cause temporary shortages of available transportation as available trucking moves to handle higher-value disaster-related contracts. For example, Katrina cleanup limited the availability of live-bottom trailers in the North and South East of the US for several months as truckers shifted operations to handle more lucrative government contracts.

Although scientists are uncertain whether climate change will lead to an increase in the number of hurricanes, warmer ocean temperatures and higher sea levels are expected to intensify their impacts. Recent analyses conclude that the strongest hurricanes occurring in some BDO Zones, including the North Atlantic, have increased in intensity over the past two to three decades.

Risk Information: There is little evidence that hurricanes, tornadoes, or similarly severe wind events have historically posed a meaningful threat in this region. Because the local climate does not typically produce these hazards at a level that would materially disrupt forest operations or damage large biomass inventories, the risk is low.

Raw Risk Likelihood (RRL)	**Score**
The risk likelihood is deemed low, therefore the RRL is 4 out of 10.	**4**
Raw Risk Impact (RRI)	**Score**
The risk impact is deemed low, therefore the RRI is 4 out of 10.	**4**
Gross Risk Indicator (GRI)	**Score**
The Gross Risk Indicator (RRL X RRI) is 16 out of 100.	**16**
Mitigation/Notching	**Notch**
RRL Mitigation (Notch) No adjustment. *RRI Mitigation (Notch)* No adjustment. The Total Notch (RRL Notch) X (RRI Notch) is NN (No Notch).	**NN**
Loaded RI Score	**Score**
The Loaded RI Score ((1-Total Notch) X GRI Score) is 16 out of 100.	**16**

1.7.9 Low Temperatures

Rationale: Low temperatures can have adverse impacts on the operations of feedstock processing equipment in Northern BDO Zones.

Risk Information: Winter temperatures regularly fall below 40°F and can occasionally slow operations through higher equipment-maintenance requirements and reduced efficiency, particularly at higher elevations. However, suppliers in the region are accustomed to these conditions and use established mitigation practices such as adjusted maintenance schedules, cold-weather lubricants, and modified operating procedures. For this reason, the risk is considered low.

Raw Risk Likelihood (RRL)	**Score**
The risk likelihood is deemed low, therefore the RRL is 4 out of 10.	**4**
Raw Risk Impact (RRI)	**Score**
The risk impact is deemed low, therefore the RRI is 4 out of 10.	**4**
Gross Risk Indicator (GRI)	**Score**
The Gross Risk Indicator (RRL X RRI) is 16 out of 100.	**16**
Mitigation/Notching	**Notch**
RRL Mitigation (Notch) No adjustment. *RRI Mitigation (Notch)* No adjustment. The Total Notch (RRL Notch) X (RRI Notch) is NN (No Notch).	**NN**
Loaded RI Score	**Score**
The Loaded RI Score ((1-Total Notch) X GRI Score) is 16 out of 100.	**16**

1.8 Risk Factor: Non-Weather Based Externalities

1.8.1 Diesel Price, Oil Price, and Producer Price Index (PPI)

Rationale: CPI and PPI can impact feedstock cost of harvest and collection over time. Sensitivities to worst-case scenarios should be run.

Risk Information: Diesel prices in Figure E-7 show substantial volatility over the past decade, ranging from $2.34 per gallon in 2016 to $6.86 in 2022, then falling to $4.80 in 2024 before rising again in early 2026. Because fuel is a major component of delivered feedstock cost, this volatility creates meaningful exposure for harvesting, collection, and transport economics, especially during broader supply-chain disruptions. CPI and PPI movements reinforce that exposure by affecting labor, fuel, equipment, and maintenance costs across the biomass supply chain. Accordingly, the combined risk from diesel, oil-linked costs, and broader price indices is medium.

Raw Risk Likelihood (RRL)	**Score**
The risk likelihood is deemed medium, therefore the RRL is 6 out of 10.	**6**
Raw Risk Impact (RRI)	**Score**
The risk impact is deemed medium, therefore the RRI is 6 out of 10.	**6**
Gross Risk Indicator (GRI)	**Score**
The Gross Risk Indicator (RRL X RRI) is 36 out of 100.	**36**
Mitigation/Notching	**Notch**
RRL Mitigation (Notch) No adjustment. *RRI Mitigation (Notch)* No adjustment. The Total Notch (RRL Notch) X (RRI Notch) is NN (No Notch).	**NN**
Loaded RI Score	**Score**
The Loaded RI Score ((1-Total Notch) X GRI Score) is 36 out of 100.	**36**

1.8.2 Currency Risk

Rationale: Where feedstock is purchased in a currency different than that which a new bio-based plant will locate in a BDO Zone, currency exchange rates and volatility can constitute risk exposure. BDO Zones that cross the US-Canada border, for example, which intake feedstock from both countries, are exposed to such currency risk.

Risk Information: Currency risk is not relevant to this BDO Zone because feedstock procurement and project operations are expected to occur entirely within the domestic U.S. market.

Raw Risk Likelihood (RRL)	**Score**
The risk likelihood is deemed not relevant, therefore the RRL is not rated (NR).	**NR**
Raw Risk Impact (RRI)	**Score**
The risk impact is deemed not relevant, therefore the RRI is not rated (NR).	**NR**
Gross Risk Indicator (GRI)	**Score**
The Gross Risk Indicator (RRL X RRI) is not rated (NR).	**NR**
Mitigation/Notching	**Notch**
RRL Mitigation (Notch) No adjustment. *RRI Mitigation (Notch)* No adjustment.	**NR**

The Total Notch (RRL Notch) X (RRI Notch) is not rated (NR).	
Loaded RI Score	**Score**
The Loaded RI Score ((1-Total Notch) X GRI Score) is not rated (NR).	**NR**

1.8.3 Border Risk

Rationale: Where feedstock is transported cross-border to another country, risk exposure to border closures and crossing delays becomes present. The availability of trucks willing to do cross-border runs is limited, which can decrease supply chain flexibility and resilience. Plants near the US-Canada border, which intake feedstock from both countries, are exposed to these risks.

Risk Information: Border risk is not relevant because the rated feedstock supply does not depend on cross-border transportation.

Raw Risk Likelihood (RRL)	**Score**
The risk likelihood is deemed not relevant, therefore the RRL is not rated (NR).	**NR**
Raw Risk Impact (RRI)	**Score**
The risk impact is deemed not relevant, therefore the RRI is not rated (NR).	**NR**
Gross Risk Indicator (GRI)	**Score**
The Gross Risk Indicator (RRL X RRI) is not rated (NR).	**NR**
Mitigation/Notching	**Notch**
RRL Mitigation (Notch)	**NR**
No adjustment.	
RRI Mitigation (Notch)	
No adjustment.	
The Total Notch (RRL Notch) X (RRI Notch) is not rated (NR).	
Loaded RI Score	**Score**
The Loaded RI Score ((1-Total Notch) X GRI Score) is not rated (NR).	**NR**

1.9 Risk Factor: Political and Social

1.9.1 Government Subsidies for Biomass Feedstock Production or Utilization

Rationale: Feedstock that is directly subsidized through government programs can pose greater long-term risk than feedstock that is not. Subsidies may be subject to amendment or repeal, sometimes with minimal notice.

NOTE: This risk indicator refers to direct feedstock subsidies only; it does not apply to government subsidies that pertain indirectly to the Issuer's operations, such as Loan Guarantees, or to the markets for products produced by the Issuer.

Risk Information: Long-term biomass availability in the Supply Zone is influenced indirectly by public funding for wildfire mitigation, watershed protection, ecological restoration, and related forest-management programs. Those funding streams, along with programs such as BioRAM that support existing biomass users, can affect the structure and economics of the broader supply chain even though they are not direct subsidies for the rated feedstocks themselves. While the rated price ranges are based on unsubsidized feedstock values, but reliance on federal appropriations and shifting political priorities still introduces uncertainty over time. This indicator is therefore assessed as medium risk.

Raw Risk Likelihood (RRL)	**Score**
The risk likelihood is deemed medium, therefore the RRL is 6 out of 10.	**6**
Raw Risk Impact (RRI)	**Score**
The risk impact is deemed medium, therefore the RRI is 6 out of 10.	**6**
Gross Risk Indicator (GRI)	**Score**

The Gross Risk Indicator (RRL X RRI) is 36 out of 100.	**36**
Mitigation/Notching *RRL Mitigation (Notch)* No adjustment. *RRI Mitigation (Notch)* No adjustment. The Total Notch (RRL Notch) X (RRI Notch) is NN (No Notch).	**Notch** **NN**
Loaded RI Score The Loaded RI Score ((1-Total Notch) X GRI Score) is 36 out of 100.	**Score** **36**

1.9.2 Local, Provincial, and National Laws, Regulations, and Permitting Pertaining to Biomass Feedstock

Rationale: Feedstock whose production is directly dependent on local, provincial, or national laws or government regulations can pose greater long-term risk than feedstock which is not, since laws and regulations may be subject to amendment or repeal.

If biomass utilization requires specific permits (e.g., percentage removal of forest residues, allowable cut limits, air emission, storage permits, rights-of-way, overweight permits for trucks, cross-border permitting for shipment of biomass, chain of custody, or certification of sustainability), the likelihood of obtaining such permits and/or complying with permitting requirements should be examined.

Risk Information: Biomass access in the Supply Zone is subject to permitting and regulatory requirements (see Section B), but various exemptions, fuel-reduction programs, and policy initiatives generally support access to forest biomass, particularly forest treatment biomass. The broader regulatory direction at the local, state, and federal levels is favorable relative to biomass utilization. Even so, the number of applicable rules and approvals remains greater than in less regulated BDO Zones, so some residual risk remains.

Raw Risk Likelihood (RRL) The risk likelihood is deemed medium, therefore the RRL is 6 out of 10.	**Score** **6**
Raw Risk Impact (RRI) The risk impact is deemed medium, therefore the RRI is 6 out of 10.	**Score** **6**
Gross Risk Indicator (GRI) The Gross Risk Indicator (RRL X RRI) is 36 out of 100.	**Score** **36**
Mitigation/Notching *RRL Mitigation (Notch)* No adjustment. *RRI Mitigation (Notch)* No adjustment. The Total Notch (RRL Notch) X (RRI Notch) is NN (No Notch).	**Notch** **NN**
Loaded RI Score The Loaded RI Score ((1-Total Notch) X GRI Score) is 36 out of 100.	**Score** **36**

1.9.3 Backlash Against Biomass Feedstock Development, Procurement, or Usage in the BDO Zone

Rationale: Public backlash against biomass development in the Issuer BDO Zone can directly impact the Issuer's ability to procure, transport, trans-load, store, or utilize feedstock by affecting local policies, regulations, and the Issuer's ability to obtain necessary permitting.

Risk Information: The region generally favors biomass removal when it is presented as a tool for wildfire-risk reduction and forest-health improvement, especially after major recent wildfires (Park-2024, Dixie-2021, North Complex-2020) increased local concern about fuel accumulation. Some opposition remains among environmental groups that question the ecological and carbon impacts of biomass extraction and post-fire logging. On balance, the local policy environment and community wildfire-planning context suggest support is stronger than opposition, provided stakeholder engagement is handled earlier in the project planning process. Accordingly, the likelihood of backlash is assessed as low to medium.

Raw Risk Likelihood (RRL)	**Score**
The risk likelihood is deemed low, therefore the RRL is 4 out of 10.	**4**
Raw Risk Impact (RRI)	**Score**
The risk impact is deemed medium, therefore the RRI is 6 out of 10.	**6**
Gross Risk Indicator (GRI)	**Score**
The Gross Risk Indicator (RRL X RRI) is 24 out of 100.	**24**
Mitigation/Notching	**Notch**
RRL Mitigation (Notch) No adjustment. *RRI Mitigation (Notch)* No adjustment. The Total Notch (RRL Notch) X (RRI Notch) is NN (No Notch).	**NN**
Loaded RI Score	**Score**
The Loaded RI Score ((1-Total Notch) X GRI Score) is 24 out of 100.	**24**

1.9.4 Consent of, and Cooperation with, Indigenous Communities

Rationale: Where new project development on or near Indigenous land, or where near Indigenous communities exert influence over feedstock producing areas, consent of, and cooperation with, Indigenous communities decrease Issuer risk.

Risk Information: California AB 52[25] requires public agencies to consult with culturally affiliated tribes during the CEQA review when tribes have requested notice and consultation. Although explicit tribal consent is not always mandatory, tribal concerns can delay, reshape, or complicate project development if they are not addressed early and respectfully. With proactive engagement and cooperation, this risk can be managed, but it remains relevant. The indicator is therefore best characterized as low to medium risk.

Raw Risk Likelihood (RRL)	**Score**
The risk likelihood is deemed low, therefore the RRL is 4 out of 10.	**4**
Raw Risk Impact (RRI)	**Score**
The risk impact is deemed medium, therefore the RRI is 6 out of 10.	**6**
Gross Risk Indicator (GRI)	**Score**
The Gross Risk Indicator (RRL X RRI) is 24 out of 100.	**24**
Mitigation/Notching	**Notch**
RRL Mitigation (Notch) No adjustment. *RRI Mitigation (Notch)*	**NN**

[25] CA Governor's Office of Land Use and Climate Innovation. "Tribal Cultural Resources (AB 52)." Accessed March 31, 2026 (lci.ca.gov/ceqa/tribal/).

No adjustment.

The Total Notch (RRL Notch) X (RRI Notch) is NN (No Notch).

Loaded RI Score	**Score**
The Loaded RI Score ((1-Total Notch) X GRI Score) is 24 out of 100.	**24**

1.9.5 Food Security Concerns

Rationale: Despite the fact that any significant correlation between food prices and biofuel production is unclear, claims that biofuel production has driven up food prices, taken food from communities or had a negative impact on land use can fuel public backlash. For example, the removal of biomass may raise public concerns relating to food security if Issuer feedstock requires the use of land that would otherwise be used for growing food.

Risk Information: Food security is not relevant to this Supply Zone because the feedstocks are not food crops and their use does not depend on land-use conversion from food production.

Raw Risk Likelihood (RRL)	**Score**
The risk likelihood is deemed not relevant, therefore the RRL is not rated (NR).	**NR**
Raw Risk Impact (RRI)	**Score**
The risk impact is deemed not relevant, therefore the RRI is not rated (NR).	**NR**
Gross Risk Indicator (GRI)	**Score**
The Gross Risk Indicator (RRL X RRI) is not rated (NR).	**NR**
Mitigation/Notching	**Notch**
RRL Mitigation (Notch) No adjustment.	**NR**
RRI Mitigation (Notch) No adjustment.	
The Total Notch (RRL Notch) X (RRI Notch) is not rated (NR).	
Loaded RI Score	**Score**
The Loaded RI Score ((1-Total Notch) X GRI Score) is not rated (NR).	**NR**

1.10 Risk Factor: Sustainability and Environmental Concern

1.10.1 Biomass Feedstock Sustainability

Rationale: Public concerns about the sustainability of feedstock production can jeopardize biomass feedstock operations. Sustainability certification schemes should be utilized where applicable to ensure that feedstock comes from sustainable sources.

Risk Information: Commercial tree harvesting in California is governed by Timber Harvest Plans[26] prepared by Registered Professional Foresters and reviewed by state agencies, while public-land harvests are also subject to NEPA review.[27] In addition, Sierra Pacific Industries, the region's largest private landowner, manages certified timberlands under the Sustainable Forestry Initiative and promotes similar practices among other private owners.[28] Together, these planning, permitting, and certification frameworks provide a strong structure for sustainable biomass production. On that basis, sustainability risk is low.

Raw Risk Likelihood (RRL)	**Score**

[26] Timber Harvest Plans in California. www.wildcalifornia.org/_files/ugd/64096f_b2aa0aa2387547ce9bfee9b032282b5a.pdf?index=true. Accessed March 31, 2026.
[27] National Environmental Policy Act. www.epa.gov/nepa. Accessed March 31, 2026.
[28] Sierra Pacific Industries. Sustainability. www.spi-ind.com/OurForests/SustainableForestInitiative. Accessed March 31, 2026.

The risk likelihood is deemed low, therefore the RRL is 4 out of 10.	**4**
Raw Risk Impact (RRI) The risk impact is deemed low, therefore the RRI is 4 out of 10.	**Score** **4**
Gross Risk Indicator (GRI) The Gross Risk Indicator (RRL X RRI) is 16 out of 100.	**Score** **16**
Mitigation/Notching *RRL Mitigation (Notch)* No adjustment. *RRI Mitigation (Notch)* No adjustment. The Total Notch (RRL Notch) X (RRI Notch) is NN (No Notch).	**Notch** **NN**
Loaded RI Score The Loaded RI Score ((1-Total Notch) X GRI Score) is 16 out of 100.	**Score** **16**

1.10.2 Risk to Soil Quality

Rationale: Soil sustainability can be defined as the management of soil in a way that does not exert any negative or irreparable effects either on the soil itself or any other systems. There is a diversity of approaches to soil sustainability in jurisdictional guidelines for forest biomass harvesting and production. For different feedstock types, there are also different thresholds at which feedstock removal causes significant negative consequences on the soil.

Poor soil quality that negatively impacts the long-term sustainability of the feedstock can entail long-term feedstock risk. Sub-optimal soil management can leave exposed soil post residue-harvest, which can lead to soil wash-off and soil carbon loss from precipitation and wind. Over-harvesting of biomass also depletes the carbon stock in the soil and creates a negative feedback loop that can degrade the soil and its nutrients.

Risk Information: Soil protection requirements embedded in SFI standards and NEPA-related harvest controls reduce the likelihood of soil degradation from biomass recovery. Measures such as limiting equipment use in wet conditions, installing water bars on skid trails, and restricting activity in sensitive areas help preserve soil structure and reduce erosion risk. Because these controls are reinforced through permitting and compliance oversight, the risk to soil quality is very low.

Raw Risk Likelihood (RRL) The risk likelihood is deemed very low, therefore the RRL is 2 out of 10.	**Score** **2**
Raw Risk Impact (RRI) The risk impact is deemed very low, therefore the RRI is 2 out of 10.	**Score** **2**
Gross Risk Indicator (GRI) The Gross Risk Indicator (RRL X RRI) is 4 out of 100.	**Score** **4**
Mitigation/Notching *RRL Mitigation (Notch)* No adjustment. *RRI Mitigation (Notch)* No adjustment. The Total Notch (RRL Notch) X (RRI Notch) is NN (No Notch).	**Notch** **NN**
Loaded RI Score The Loaded RI Score ((1-Total Notch) X GRI Score) is 4 out of 100.	**Score** **4**

1.10.3 Risk to Surface and Groundwater

Rationale: Excessive nutrient runoff from biomass feedstock production can accumulate in surface waters and result in algal blooms and hypoxia, which can lead to habitat loss for aquatic species higher up the food chain and alter aquatic ecosystem food webs. Damage to aquatic ecosystems can cause social and regulatory backlash. Water intake issues can also increase risk.

Risk Information: Surface and groundwater risks are mitigated through operational requirements under NEPA and SFI, including streamside management zones, erosion-control measures, and restrictions on activity near water resources. These practices are designed to limit sedimentation, protect water quality, and reduce adverse effects from biomass recovery operations. With permitting and certification oversight in place, the resulting risk to surface and groundwater is very low.

Raw Risk Likelihood (RRL) The risk likelihood is deemed very low, therefore the RRL is 2 out of 10.	**Score** **2**
Raw Risk Impact (RRI) The risk impact is deemed very low, therefore the RRI is 2 out of 10.	**Score** **2**
Gross Risk Indicator (GRI) The Gross Risk Indicator (RRL X RRI) is 4 out of 100.	**Score** **4**
Mitigation/Notching *RRL Mitigation (Notch)* No adjustment. *RRI Mitigation (Notch)* No adjustment. The Total Notch (RRL Notch) X (RRI Notch) is NN (No Notch).	**Notch** **NN**
Loaded RI Score The Loaded RI Score ((1-Total Notch) X GRI Score) is 4 out of 100.	**Score** **4**

1.10.4 Water Use

Rationale: Biomass feedstock operations can have significant impacts on the hydrological flux (infiltration, groundwater recharge, interception, and transpiration) of ecosystems. This can lead to water shortages, lower yields, and backlash from regulatory bodies if management plans are not properly instituted.

Risk Information: Forest-based biomass production in the Supply Zone relies primarily on natural rainfall rather than irrigation, which keeps direct operational water demand relatively low. In addition, SFI and NEPA compliance requires measures to conserve and protect water resources during harvesting activities. As a result, the risk of materially affecting water availability or water quality through feedstock production is very lowS.

Raw Risk Likelihood (RRL) The risk likelihood is deemed very low, therefore the RRL is 2 out of 10.	**Score** **2**
Raw Risk Impact (RRI) The risk impact is deemed very low, therefore the RRI is 2 out of 10.	**Score** **2**
Gross Risk Indicator (GRI) The Gross Risk Indicator (RRL X RRI) is 4 out of 100.	**Score** **4**
Mitigation/Notching *RRL Mitigation (Notch)* No adjustment. *RRI Mitigation (Notch)*	**Notch** **NN**

No adjustment. The Total Notch (RRL Notch) X (RRI Notch) is NN (No Notch).
Loaded RI Score **Score**
The Loaded RI Score ((1-Total Notch) X GRI Score) is 4 out of 100. **4**

1.10.5 Pesticide Risk to Human and Ecosystem Health

Rationale: Application of pesticides (i.e., herbicides, fungicides, and insecticides) on forest landscapes can result in adverse health effects for humans and ecosystems. If pesticide application is required in feedstock production, the impact must be considered in the BDO Zone rating.
Risk Information: Pesticide use in timber operations is limited compared with agricultural systems, and applications in forested areas are overseen by the USDA Forest Service's Forest Health Protection staff. On National Forest lands in California, only a very small share of total forest and rangeland area is treated with pesticides each year. Given the limited scale of application, this indicator presents very low risk to human and ecosystem health.
Raw Risk Likelihood (RRL) **Score**
The risk likelihood is deemed very low, therefore the RRL is 2 out of 10. **2**
Raw Risk Impact (RRI) **Score**
The risk impact is deemed very low, therefore the RRI is 2 out of 10. **2**
Gross Risk Indicator (GRI) **Score**
The Gross Risk Indicator (RRL X RRI) is 4 out of 100. **4**
Mitigation/Notching **Notch**
RRL Mitigation (Notch) **NN** No adjustment. *RRI Mitigation (Notch)* No adjustment. The Total Notch (RRL Notch) X (RRI Notch) is NN (No Notch).
Loaded RI Score **Score**
The Loaded RI Score ((1-Total Notch) X GRI Score) is 4 out of 100. **4**

1.10.6 Risk to Wildlife and Landscape

Rationale: Biomass production and supply chain operations with negative impacts on wildlife and landscape are at a greater long-term risk of encountering project setbacks and disruptions.
Risk Information: Biomass production and recovery activities in the Supply Zone operate within regulatory and certification frameworks that include habitat and landscape protections. Measures such as retaining snags and down wood, maintaining structural diversity, protecting sensitive areas, and incorporating wildlife review into Timber Harvest Plans help reduce ecological disturbance. These safeguards support biomass utilization while limiting impacts on wildlife and landscape values, resulting in a very low risk rating.
Raw Risk Likelihood (RRL) **Score**
The risk likelihood is deemed very low, therefore the RRL is 2 out of 10. **2**
Raw Risk Impact (RRI) **Score**
The risk impact is deemed very low, therefore the RRI is 2 out of 10. **2**
Gross Risk Indicator (GRI) **Score**
The Gross Risk Indicator (RRL X RRI) is 4 out of 100. **4**
Mitigation/Notching **Notch**

RRL Mitigation (Notch) No adjustment. *RRI Mitigation (Notch)* No adjustment. The Total Notch (RRL Notch) X (RRI Notch) is NN (No Notch).	**NN**
Loaded RI Score The Loaded RI Score ((1-Total Notch) X GRI Score) is 4 out of 100.	**Score** **4**

CATEGORY 2.0: INFRASTRUCTURE RISKS

2.1 Risk Factor: Physical Infrastructure

2.1.1 Land Parcel/Industrial District

Risk Information: The Crescent Mills Industrial Site comprises approximately 20-22 acres in Plumas County. The property is zoned Heavy Industrial by Plumas County. The site is relatively level, with a general downslope to the east, at an elevation of approximately 3,510 feet above mean sea level on the western edge of Indian Valley, approximately 300 feet from Indian Creek. Grading activities associated with brownfield remediation have resulted in several raised areas (soil caps) over soil with elevated arsenic concentrations, and the site contains a series of stormwater retention ponds and associated drainage channels. The site was previously developed as a lumber mill from the 1940s through 1986 and has undergone extensive environmental remediation. No historic standing structures remain. The site lies within the 100-year floodplain of Indian Creek, but a wetland delineation conducted in March 2019 found no jurisdictional wetlands on the property. The site's brownfield status and floodplain location are notable considerations, but extensive due diligence has been completed. The risk is assessed as low.

Raw Risk Likelihood (RRL) The risk likelihood is deemed low, therefore the RRL is 4 out of 10.	**Score** **4**
Raw Risk Impact (RRI) The risk impact is deemed low, therefore the RRI is 4 out of 10.	**Score** **4**
Gross Risk Indicator (GRI) The Gross Risk Indicator (RRL X RRI) is 16 out of 100.	**Score** **16**
Mitigation/Notching *RRL Mitigation (Notch)* No adjustment. *RRI Mitigation (Notch)* No adjustment. The Total Notch (RRL Notch) X (RRI Notch) is NN (No Notch).	**Notch** **NN**
Loaded RI Score The Loaded RI Score ((1-Total Notch) X GRI Score) is 16 out of 100.	**Score** **16**

2.1.2 Ownership of Land

Risk Information: The property is owned outright by the Sierra Institute, which purchased it in 2017. The Sierra Institute is a nonprofit organization headquartered in Taylorsville, California (approximately 7 miles from the site), with a long track record of community and environmental work in the region. The property is not available for purchase but the Sierra Institute plans to lease parcels to tenants, with the Mosaic Timber CLT manufacturing facility as the first planned lessee. The ownership by a stable, locally invested nonprofit with clear development intent and an established leasing model positions this as a low risk factor.

Raw Risk Likelihood (RRL) The risk likelihood is deemed low, therefore the RRL is 4 out of 10.	**Score** **4**
Raw Risk Impact (RRI) The risk impact is deemed low, therefore the RRI is 4 out of 10.	**Score** **4**
Gross Risk Indicator (GRI) The Gross Risk Indicator (RRL X RRI) is 16 out of 100.	**Score** **16**
Mitigation/Notching *RRL Mitigation (Notch)* No adjustment. *RRI Mitigation (Notch)* No adjustment. The Total Notch (RRL Notch) X (RRI Notch) is NN (No Notch).	**Notch** **NN**
Loaded RI Score The Loaded RI Score ((1-Total Notch) X GRI Score) is 16 out of 100.	**Score** **16**

2.1.3 Permitting Description

Risk Information: The site currently operates under California's General Permit for Stormwater Discharges Associated with Industrial Activities and maintains a current Stormwater Pollution Prevention Plan. California's regulatory environment is more complex than many states, with requirements under CEQA, NHPA (for federally funded components), and various environmental compliance frameworks. However, significant permitting groundwork has already been completed, including cultural resource clearance, wetland delineation, and air quality permitting. A notable near-term concern is that Plumas County is currently understaffed, which is causing delays across all permit types. Standard timelines for site work permits are approximately six to eight weeks, but current processing times are running longer due to staffing shortfalls. The risk is assessed as medium due to California's regulatory complexity and the current county staffing constraints, partially mitigated by the substantial permitting progress already achieved for the site.

Raw Risk Likelihood (RRL) The risk likelihood is deemed medium, therefore the RRL is 6 out of 10.	**Score** **6**
Raw Risk Impact (RRI) The risk impact is deemed medium, therefore the RRI is 6 out of 10.	**Score** **6**
Gross Risk Indicator (GRI) The Gross Risk Indicator (RRL X RRI) is 36 out of 100.	**Score** **36**
Mitigation/Notching *RRL Mitigation (Notch)* No adjustment. *RRI Mitigation (Notch)* No adjustment. The Total Notch (RRL Notch) X (RRI Notch) is NN (No Notch).	**Notch** **NN**
Loaded RI Score The Loaded RI Score ((1-Total Notch) X GRI Score) is 36 out of 100.	**Score** **36**

2.1.4 Environmental Issues

Risk Information: Extensive environmental assessments have been completed on the property, including a Phase I Environmental Site Assessment, a Phase II Environmental Site Assessment, a Targeted Site Investigation, a Targeted Brownfields Assessment, a Wetlands Delineation, and a Cultural Resources Records Search and Sensitivity Assessment. The Phase I ESA identified two Recognized Environmental Conditions: (1) impacted soil and groundwater associated with historical lumber mill operations, including arsenic, TPH, dioxins/furans, and PCBs; and (2) impacted material in on-site waste piles and fill. Since those assessments, the site has undergone a full brownfield remediation funded by US EPA Brownfields grants and overseen by DTSC. The cleanup is now complete, and the Sierra Institute has received a cleanup completion report as well as a letter from the EPA confirming that grant conditions have been satisfied. Remediation activities included placement of clean soil caps over areas with elevated arsenic concentrations and institutional controls restricting future land disturbance. A Land Use Covenant restricts the site to industrial use and stipulates that areas of soil cover will not be disturbed. The site lies within a FEMA Flood Hazard Zone A. During remediation, some areas were raised to near or above the assumed base flood elevation, which may partially address flood risk. However, the flood zone designation may present challenges for developers seeking flood insurance.

Raw Risk Likelihood (RRL)	**Score**
The risk likelihood is deemed low, therefore the RRL is 4 out of 10.	**4**
Raw Risk Impact (RRI)	**Score**
The risk impact is deemed low, therefore the RRI is 4 out of 10.	**4**
Gross Risk Indicator (GRI)	**Score**
The Gross Risk Indicator (RRL X RRI) is 16 out of 100.	**16**
Mitigation/Notching	**Notch**
RRL Mitigation (Notch) No adjustment. *RRI Mitigation (Notch)* No adjustment. The Total Notch (RRL Notch) X (RRI Notch) is NN (No Notch).	**NN**
Loaded RI Score	**Score**
The Loaded RI Score ((1-Total Notch) X GRI Score) is 16 out of 100.	**16**

2.2 Risk Factor: Utilities

2.2.1 Natural Gas Availability

Risk Information: There is no natural gas service available at the site or in the immediate Crescent Mills area. Any industrial operations requiring gas-fired equipment would need to rely on propane or alternative energy sources. The absence of natural gas is a limitation for certain types of industrial operations; therefore, the risk is assessed as high.

Raw Risk Likelihood (RRL)	**Score**
The risk likelihood is deemed high, therefore the RRL is 8 out of 10.	**8**
Raw Risk Impact (RRI)	**Score**
The risk impact is deemed high, therefore the RRI is 8 out of 10.	**8**
Gross Risk Indicator (GRI)	**Score**
The Gross Risk Indicator (RRL X RRI) is 64 out of 100.	**64**
Mitigation/Notching	**Notch**
RRL Mitigation (Notch) No adjustment. *RRI Mitigation (Notch)*	**NN**

No adjustment. The Total Notch (RRL Notch) X (RRI Notch) is NN (No Notch).
Loaded RI Score — **Score**
The Loaded RI Score ((1-Total Notch) X GRI Score) is 64 out of 100. — **64**

2.2.2 Electric Availability

Risk Information: Electric service is provided by Pacific Gas and Electric Company (PG&E). A PG&E electrical substation is located effectively on the site, on a small parcel adjacent to the western boundary. The site has three-phase power with a capacity of 2.4 MW. The on-site substation and existing three-phase industrial power represent significant electrical infrastructure assets. The risk is assessed as very low.

Raw Risk Likelihood (RRL) — **Score**
The risk likelihood is deemed very low, therefore the RRL is 2 out of 10. — **2**
Raw Risk Impact (RRI) — **Score**
The risk impact is deemed very low, therefore the RRI is 2 out of 10. — **2**
Gross Risk Indicator (GRI) — **Score**
The Gross Risk Indicator (RRL X RRI) is 4 out of 100. — **4**
Mitigation/Notching — **Notch**
RRL Mitigation (Notch) — **NN** No adjustment. *RRI Mitigation (Notch)* No adjustment. The Total Notch (RRL Notch) X (RRI Notch) is NN (No Notch).
Loaded RI Score — **Score**
The Loaded RI Score ((1-Total Notch) X GRI Score) is 4 out of 100. — **4**

2.2.3 Water Availability

Risk Information: Water is provided by the Indian Valley Community Services District. The site is connected to the community water system via an existing water line. The site is fed by a 3" water service that branches off a 6" water main. The water system is limited, with a well that produces 32 gpm and a spring rated at 60 gpm.

Raw Risk Likelihood (RRL) — **Score**
The risk likelihood is deemed medium, therefore the RRL is 6 out of 10. — **6**
Raw Risk Impact (RRI) — **Score**
The risk impact is deemed medium, therefore the RRI is 6 out of 10. — **6**
Gross Risk Indicator (GRI) — **Score**
The Gross Risk Indicator (RRL X RRI) is 36 out of 100. — **36**
Mitigation/Notching — **Notch**
RRL Mitigation (Notch) — **NN** No adjustment. *RRI Mitigation (Notch)* No adjustment. The Total Notch (RRL Notch) X (RRI Notch) is NN (No Notch).
Loaded RI Score — **Score**
The Loaded RI Score ((1-Total Notch) X GRI Score) is 36 out of 100. — **36**

2.2.4 Drainage, Stormwater Management, and Sewage

Risk Information: There is no municipal sewage or septic system currently on the site, and no municipal sewer system services the town of Crescent Mills. The site maintains a current Stormwater Pollution Prevention Plan under California's Industrial General Permit and has a series of stormwater retention ponds and drainage channels. The site lies within the 100-year floodplain of Indian Creek, and the remediation design has accounted for flood risk by relocating debris above the 100-year flood elevation. The risk is assessed as medium-high.

Raw Risk Likelihood (RRL)	**Score**
The risk likelihood is deemed high, therefore the RRL is 8 out of 10.	**8**
Raw Risk Impact (RRI)	**Score**
The risk impact is deemed medium, therefore the RRI is 6 out of 10.	**6**
Gross Risk Indicator (GRI)	**Score**
The Gross Risk Indicator (RRL X RRI) is 48 out of 100.	**48**
Mitigation/Notching	**Notch**
RRL Mitigation (Notch) No adjustment. *RRI Mitigation (Notch)* No adjustment. The Total Notch (RRL Notch) X (RRI Notch) is NN (No Notch).	**NN**
Loaded RI Score	**Score**
The Loaded RI Score ((1-Total Notch) X GRI Score) is 48 out of 100.	**48**

2.2.5 Waste Disposal

Risk Information: The Feather River Disposal Waste Transfer Station in Greenville, California, is the closest landfill/transfer station, located approximately 6 miles from the site. The proximity of the general waste transfer station and the on-site reuse strategy for primary wood waste positions this as a very low risk factor.

Raw Risk Likelihood (RRL)	**Score**
The risk likelihood is deemed very low, therefore the RRL is 2 out of 10.	**2**
Raw Risk Impact (RRI)	**Score**
The risk impact is deemed very low, therefore the RRI is 2 out of 10.	**2**
Gross Risk Indicator (GRI)	**Score**
The Gross Risk Indicator (RRL X RRI) is 4 out of 100.	**4**
Mitigation/Notching	**Notch**
RRL Mitigation (Notch) No adjustment. *RRI Mitigation (Notch)* No adjustment. The Total Notch (RRL Notch) X (RRI Notch) is NN (No Notch).	**NN**
Loaded RI Score	**Score**
The Loaded RI Score ((1-Total Notch) X GRI Score) is 4 out of 100.	**4**

2.2.6 Information and Communication Technology (ICT) Services

Risk Information: There is no current internet, fiber, or phone service provider on the site. However, telecommunications lines are located immediately adjacent to the site along the railroad right-of-way, and extending service to the site is not expected to require a significant investment. The proximity of existing telecommunications infrastructure substantially reduces the cost and complexity of establishing connectivity. The risk is assessed as medium, reflecting the current lack of service but the feasible path to connection.

Raw Risk Likelihood (RRL)	**Score**
The risk likelihood is deemed high, therefore the RRL is 8 out of 10.	**8**
Raw Risk Impact (RRI)	**Score**
The risk impact is deemed low, therefore the RRI is 4 out of 10.	**4**
Gross Risk Indicator (GRI)	**Score**
The Gross Risk Indicator (RRL X RRI) is 32 out of 100.	**32**
Mitigation/Notching	**Notch**
RRL Mitigation (Notch) No adjustment. *RRI Mitigation (Notch)* No adjustment. The Total Notch (RRL Notch) X (RRI Notch) is NN (No Notch).	**NN**
Loaded RI Score	**Score**
The Loaded RI Score ((1-Total Notch) X GRI Score) is 32 out of 100.	**32**

2.3 Risk Factor: Transportation/Logistics

2.3.1 Road/Highway Access

Risk Information: The site is located approximately 377 feet from California State Route 89 (CA-89), a major north-south state highway through the northern Sierra Nevada. The site access road is part of the parcel and is owned by the Sierra Institute. CA-89 is a two-lane highway and is the primary transportation corridor through Indian Valley. There is no interstate highway access in Plumas County; the nearest major freeway connections are via CA-70 to the south (approximately 30 miles to the junction at Quincy) or US-395 to the east. The distance to major metropolitan distribution centers (Sacramento is approximately 170 miles; Reno is approximately 100 miles) is significant for freight logistics. While the direct highway frontage is a positive, the rural mountain location and absence of interstate access present logistical challenges for high-volume freight operations. The risk is assessed as medium.

Raw Risk Likelihood (RRL)	**Score**
The risk likelihood is deemed medium, therefore the RRL is 6 out of 10.	**6**
Raw Risk Impact (RRI)	**Score**
The risk impact is deemed medium, therefore the RRI is 6 out of 10.	**6**
Gross Risk Indicator (GRI)	**Score**
The Gross Risk Indicator (RRL X RRI) is 36 out of 100.	**36**
Mitigation/Notching	**Notch**
RRL Mitigation (Notch) No adjustment. *RRI Mitigation (Notch)* No adjustment. The Total Notch (RRL Notch) X (RRI Notch) is NN (No Notch).	**NN**

Loaded RI Score	Score
The Loaded RI Score ((1-Total Notch) X GRI Score) is 36 out of 100.	36

2.3.2 Rail Access

Risk Information: Rail lines are directly adjacent to the property, serviced by BNSF Railway (freight line, not passenger), with a short industrial spur line for loading and unloading at the site. The line runs to Roseville, California, to the south and Klamath Falls, Oregon, to the north, connecting to the historic Feather River Route rail line. This on-site rail access with an existing industrial spur is a significant logistics asset that differentiates the site from many rural industrial locations. The risk is assessed as very low.

Raw Risk Likelihood (RRL)	Score
The risk likelihood is deemed very low, therefore the RRL is 2 out of 10.	2
Raw Risk Impact (RRI)	**Score**
The risk impact is deemed very low, therefore the RRI is 2 out of 10.	2
Gross Risk Indicator (GRI)	**Score**
The Gross Risk Indicator (RRL X RRI) is 4 out of 100.	4
Mitigation/Notching	**Notch**
RRL Mitigation (Notch) No adjustment. *RRI Mitigation (Notch)* No adjustment. The Total Notch (RRL Notch) X (RRI Notch) is NN (No Notch).	NN
Loaded RI Score	**Score**
The Loaded RI Score ((1-Total Notch) X GRI Score) is 4 out of 100.	4

2.3.3 Airport Access

Risk Information: The nearest airport is a small local airport in Quincy, approximately 17 miles from the site, which provides general aviation services only. The closest commercial/international airport is Reno-Tahoe International Airport, approximately 100 miles away. Sacramento International Airport is approximately 170 miles to the southwest. The distance to the nearest commercial airport is a notable limitation for business travel. The risk is assessed as medium.

Raw Risk Likelihood (RRL)	Score
The risk likelihood is deemed medium, therefore the RRL is 6 out of 10.	6
Raw Risk Impact (RRI)	**Score**
The risk impact is deemed medium, therefore the RRI is 6 out of 10.	6
Gross Risk Indicator (GRI)	**Score**
The Gross Risk Indicator (RRL X RRI) is 36 out of 100.	36
Mitigation/Notching	**Notch**
RRL Mitigation (Notch) No adjustment. *RRI Mitigation (Notch)* No adjustment. The Total Notch (RRL Notch) X (RRI Notch) is NN (No Notch).	NN
Loaded RI Score	**Score**
The Loaded RI Score ((1-Total Notch) X GRI Score) is 36 out of 100.	36

2.3.4 Water Freight Access

Risk Information: The nearest major deep-water ocean port is the Port of Stockton, located roughly 200–220 miles south, typically accessed via CA-70 or CA-99. For smaller coastal access, the Humboldt Bay Harbor (Port of Eureka) is approximately 150–160 miles west-southwest. There is no navigable waterway freight access in the immediate area. The risk is assessed as medium.

Raw Risk Likelihood (RRL)	**Score**
The risk likelihood is deemed medium, therefore the RRL is 6 out of 10.	**6**
Raw Risk Impact (RRI)	**Score**
The risk impact is deemed medium, therefore the RRI is 6 out of 10.	**6**
Gross Risk Indicator (GRI)	**Score**
The Gross Risk Indicator (RRL X RRI) is 36 out of 100.	**36**
Mitigation/Notching	**Notch**
RRL Mitigation (Notch) No adjustment. *RRI Mitigation (Notch)* No adjustment. The Total Notch (RRL Notch) X (RRI Notch) is NN (No Notch).	**NN**
Loaded RI Score	**Score**
The Loaded RI Score ((1-Total Notch) X GRI Score) is 36 out of 100.	**36**

2.4 Risk Factor: Social Infrastructure

2.4.1 Healthcare (Local)

Risk Information: The nearest healthcare clinic to the site is located in Greenville, approximately seven minutes down the road. The nearest hospital is Plumas District Hospital (PDH) in Quincy (approximately 20 miles from the site), a critical access hospital offering 24-hour emergency services, ambulance service, medical clinics, surgery, telemedicine, rehabilitation, behavioral health, and dental services. PDH is partnered with UC Davis Health as a designated Rural Center of Excellence and operates rural health clinics in both Quincy and Greenville. Seneca Healthcare District in Chester is approximately 30 minutes away. Eastern Plumas Health Care in Portola provides hospital, clinic, skilled nursing, and home health services, and after that the next facility is in Susanville. For more comprehensive or specialized medical services, residents typically travel to hospitals in Chico or Reno (100+ miles). The nearby Greenville clinic and the critical access hospital in Quincy provide adequate basic healthcare coverage. The risk is assessed as very low.

Raw Risk Likelihood (RRL)	**Score**
The risk likelihood is deemed very low, therefore the RRL is 2 out of 10.	**2**
Raw Risk Impact (RRI)	**Score**
The risk impact is deemed very low, therefore the RRI is 2 out of 10.	**2**
Gross Risk Indicator (GRI)	**Score**
The Gross Risk Indicator (RRL X RRI) is 4 out of 100.	**4**
Mitigation/Notching	**Notch**
RRL Mitigation (Notch) No adjustment. *RRI Mitigation (Notch)* No adjustment.	**NN**

The Total Notch (RRL Notch) X (RRI Notch) is NN (No Notch).	
Loaded RI Score	**Score**
The Loaded RI Score ((1-Total Notch) X GRI Score) is 4 out of 100.	**4**

2.4.2 Education (Schools)

Risk Information: Local K–12 education is provided by the Plumas Unified School District and the Plumas Charter School, with elementary and high schools located in Greenville, Quincy, and Chester. Feather River College (FRC), a public two-year community college in Quincy (approximately 20 miles), is fully accredited by the Western Association of Schools and Colleges, with a total enrollment of approximately 1,800–2,700 students. FRC offers career education certificates, transfer pathways, and a four-year bachelor's degree program in fire science. The Feather River Adult School, which serves the county through locations in Quincy and Greenville, provides vocational certification programs including welding and auto mechanics. The next nearest college is in Susanville. The closest universities are California State University, Chico (Cal State Chico) and the University of Nevada, Reno (UNR), both approximately 100+ miles from the site. Additionally, Butte College, located between Chico and Paradise, offers a heavy equipment operation program relevant to industrial workforce needs. The combination of local K–12 schools, an in-county community college with vocational and bachelor's programs, and the Feather River Adult School's welding and mechanical certification offerings positions education as a very low risk factor.

Raw Risk Likelihood (RRL)	**Score**
The risk likelihood is deemed very low, therefore the RRL is 2 out of 10.	**2**
Raw Risk Impact (RRI)	**Score**
The risk impact is deemed very low, therefore the RRI is 2 out of 10.	**2**
Gross Risk Indicator (GRI)	**Score**
The Gross Risk Indicator (RRL X RRI) is 4 out of 100.	**4**
Mitigation/Notching	**Notch**
RRL Mitigation (Notch) No adjustment.	**NN**
RRI Mitigation (Notch) No adjustment.	
The Total Notch (RRL Notch) X (RRI Notch) is NN (No Notch).	
Loaded RI Score	**Score**
The Loaded RI Score ((1-Total Notch) X GRI Score) is 4 out of 100.	**4**

2.4.3 Local Transportation

Risk Information: Personal vehicle travel is the predominant transportation mode in Plumas County, with approximately 78% of workers driving alone and another 9% carpooling. A rural public bus system (Plumas Transit) operates on weekdays, running between Portola, Quincy, and Chester. The bus route travels the main route through Crescent Mills where the site is located, making several trips per day. The system does not operate on weekends. While the workforce is primarily dependent on personal vehicles, the existence of a weekday bus service that directly passes the site provides a baseline of public transportation access that is better than many comparable rural locations. The risk is assessed as low-medium.

Raw Risk Likelihood (RRL)	**Score**
The risk likelihood is deemed medium, therefore the RRL is 6 out of 10.	**6**
Raw Risk Impact (RRI)	**Score**
The risk impact is deemed low, therefore the RRI is 4 out of 10.	**4**

Gross Risk Indicator (GRI)	Score
The Gross Risk Indicator (RRL X RRI) is 24 out of 100.	24
Mitigation/Notching	**Notch**
RRL Mitigation (Notch) No adjustment. *RRI Mitigation (Notch)* No adjustment. The Total Notch (RRL Notch) X (RRI Notch) is NN (No Notch).	NN
Loaded RI Score	**Score**
The Loaded RI Score ((1-Total Notch) X GRI Score) is 24 out of 100.	24

2.4.4 Public Safety (Local)

Risk Information: The Plumas County Sheriff's Department provides law enforcement coverage for the unincorporated areas of the county, including Crescent Mills. The Indian Valley Fire Protection District provides fire and emergency response services for the area. Plumas County has a violent crime rate of approximately 654 per 100,000 residents and a property crime rate of approximately 2,372 per 100,000 residents[29]. Plumas County's violent crime rate (654 per 100,000) is approximately 72% higher than the national average (380 per 100,000). Plumas County's property crime rate (2,372 per 100,000) is approximately 21% higher than the national average (1,954 per 100,000) [30].
The risk is assessed as medium.

Raw Risk Likelihood (RRL)	Score
The risk likelihood is deemed medium, therefore the RRL is 6 out of 10.	6
Raw Risk Impact (RRI)	**Score**
The risk impact is deemed medium, therefore the RRI is 6 out of 10.	6
Gross Risk Indicator (GRI)	**Score**
The Gross Risk Indicator (RRL X RRI) is 36 out of 100.	36
Mitigation/Notching	**Notch**
RRL Mitigation (Notch) No adjustment. *RRI Mitigation (Notch)* No adjustment. The Total Notch (RRL Notch) X (RRI Notch) is NN (No Notch).	NN
Loaded RI Score	**Score**
The Loaded RI Score ((1-Total Notch) X GRI Score) is 36 out of 100.	36

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[29] Violent crime rate (654 per 100,000): Simmrin Law analysis of FBI Crime Data Explorer county-level data, 2013–2023 average — https://calbizjournal.com/study-reveals-california-counties-where-violent-crimes-threaten-public-safety/; also corroborated by CrimeGrade.org (5.8 per 1,000 = 580 per 100,000 for a typical recent year) — https://crimegrade.org/violent-crime-plumas-county-ca/. Property crime rate (2,372 per 100,000): CrimeGrade.org, Plumas County — https://crimegrade.org/property-crime-plumas-county-ca/.
[30] National averages (violent: 380 per 100,000; property: 1,954 per 100,000): Pew Research Center, citing FBI UCR 2022 data — https://www.pewresearch.org/short-reads/2024/04/24/what-the-data-says-about-crime-in-the-us/; FBI Crime Data Explorer — https://cde.ucr.cjis.gov/LATEST/webapp/#/pages/downloads.

2.4.5 Housing/Cost of Living

Risk Information: The BDO Zone lies within both Plumas County, CA (97% of the BDO Zone) and Lassen County, CA (3%). As of 2024, the median property value for Plumas County is approximately $327,400 and median gross rent is $1,034/month. In Lassen County, the median property value is approximately $259,500 and medium gross rent is $1,043. Plumas County is currently experiencing a housing crisis, significantly exacerbated by the 2021 Dixie Fire, which destroyed the communities of Indian Falls, Greenville, and Canyon Dam—the primary low-income housing areas for this side of the county. Displaced residents have distributed throughout the region, further straining an already limited housing stock. Risk is deemed high.

Raw Risk Likelihood (RRL)	**Score**
The risk likelihood is deemed high, therefore the RRL is 8 out of 10.	**8**
Raw Risk Impact (RRI)	**Score**
The risk impact is deemed high, therefore the RRI is 8 out of 10.	**8**
Gross Risk Indicator (GRI)	**Score**
The Gross Risk Indicator (RRL X RRI) is 64 out of 100.	**64**
Mitigation/Notching	**Notch**
RRL Mitigation (Notch) No adjustment. *RRI Mitigation (Notch)* No adjustment. The Total Notch (RRL Notch) X (RRI Notch) is NN (No Notch).	**NN**
Loaded RI Score	**Score**
The Loaded RI Score ((1-Total Notch) X GRI Score) is 64 out of 100.	**64**

2.5 Risk Factor: Labor

2.5.1 Workforce

Risk Information: In 2025, the BDO Zone had a population of approximately 9,247 people. As of September 2025, Plumas County has an unemployment rate of 7.2%, significantly higher than the national average of 4.1%. The median age is 52 years, indicating a significantly aging population. In Plumas County, approximately 94% of individuals over 25 years of age have a high school education or higher, and approximately 21% have a bachelor's degree or higher. This compares to national statistics of 89% and 35%, respectively. Workforce development resources include Feather River College in Quincy (vocational certificates and a bachelor's program in fire science), the Feather River Adult School providing welding and auto mechanic certification in Quincy and Greenville, and Butte College's heavy equipment program (between Chico and Paradise). The small population base, aging demographics, declining labor force, and seasonal employment fluctuations present significant workforce challenges. The risk is assessed as medium-high.

Raw Risk Likelihood (RRL)	**Score**
The risk likelihood is deemed medium, therefore the RRL is 6 out of 10.	**6**
Raw Risk Impact (RRI)	**Score**
The risk impact is deemed high, therefore the RRI is 8 out of 10.	**8**
Gross Risk Indicator (GRI)	**Score**
The Gross Risk Indicator (RRL X RRI) is 48 out of 100.	**48**
Mitigation/Notching	**Notch**
RRL Mitigation (Notch) No adjustment. *RRI Mitigation (Notch)*	**NN**

No adjustment. The Total Notch (RRL Notch) X (RRI Notch) is NN (No Notch).
Loaded RI Score — **Score**
The Loaded RI Score ((1-Total Notch) X GRI Score) is 48 out of 100. — **48**

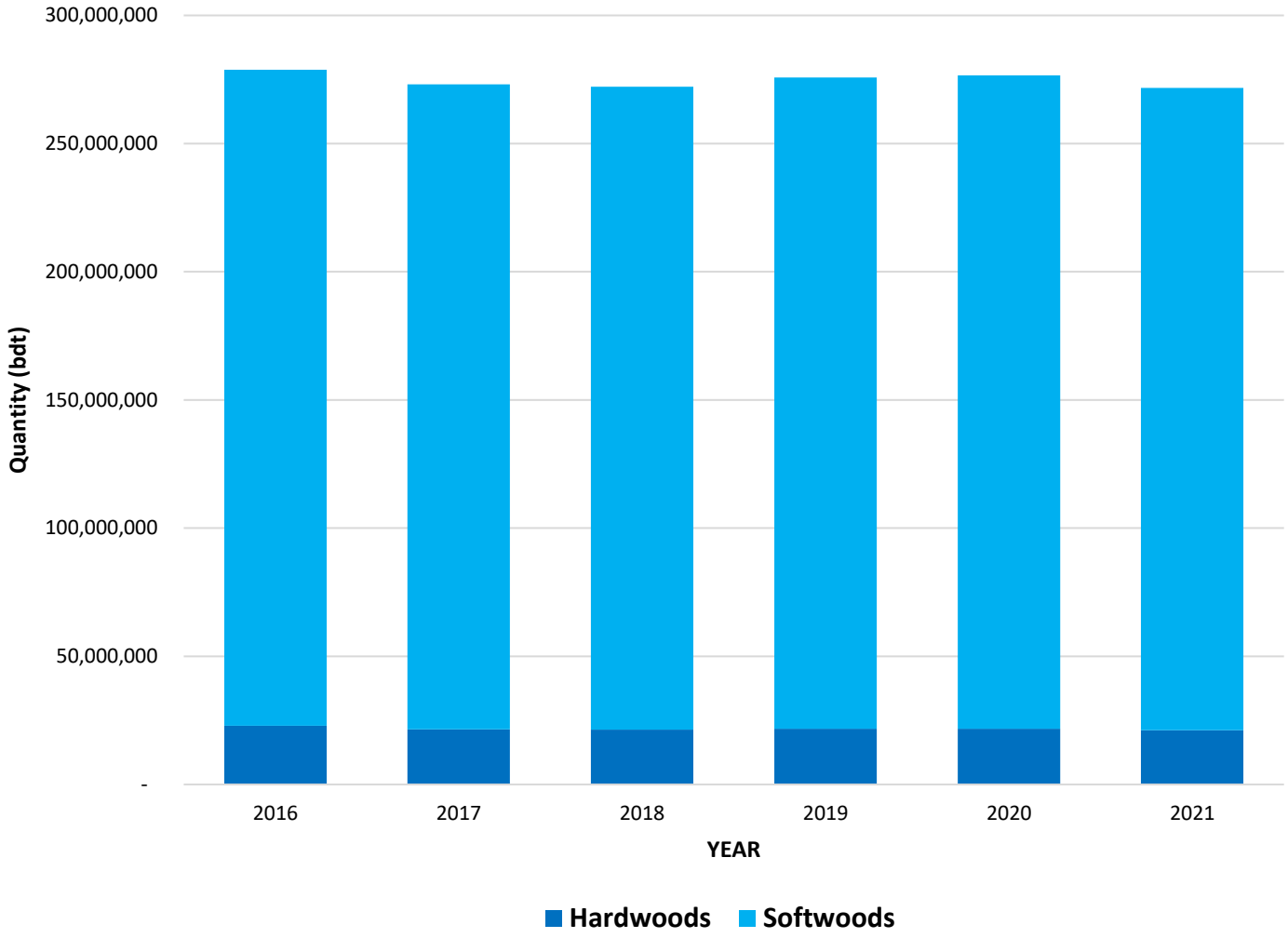
2.5.2 Labor Costs

Risk Information: California's minimum wage as of 2025 is $16.50/hour, one of the highest in the nation compared to the federal minimum wage of $7.25/hour. In 2024, the median household income in Plumas County was approximately $66,031, compared to the state median of $99,122, and the national median of $81,604. Plumas County's average weekly wage in Q3 2025 was $1,253, which is below the national average of $1,459. While Plumas County's labor costs are lower than California's metropolitan areas, they remain significantly higher than most rural counties nationally. Combined with California's regulatory compliance costs, the labor cost environment is a moderate risk factor for cost-sensitive industrial operations. The risk is assessed as medium.

Raw Risk Likelihood (RRL) — **Score**
The risk likelihood is deemed medium, therefore the RRL is 6 out of 10. — **6**
Raw Risk Impact (RRI) — **Score**
The risk impact is deemed medium, therefore the RRI is 6 out of 10. — **6**
Gross Risk Indicator (GRI) — **Score**
The Gross Risk Indicator (RRL X RRI) is 36 out of 100. — **36**
Mitigation/Notching — **Notch**
RRL Mitigation (Notch) — **NN** No adjustment. *RRI Mitigation (Notch)* No adjustment. The Total Notch (RRL Notch) X (RRI Notch) is Choose
Loaded RI Score — **Score**
The Loaded RI Score ((1-Total Notch) X GRI Score) is 36 out of 100. — **36**

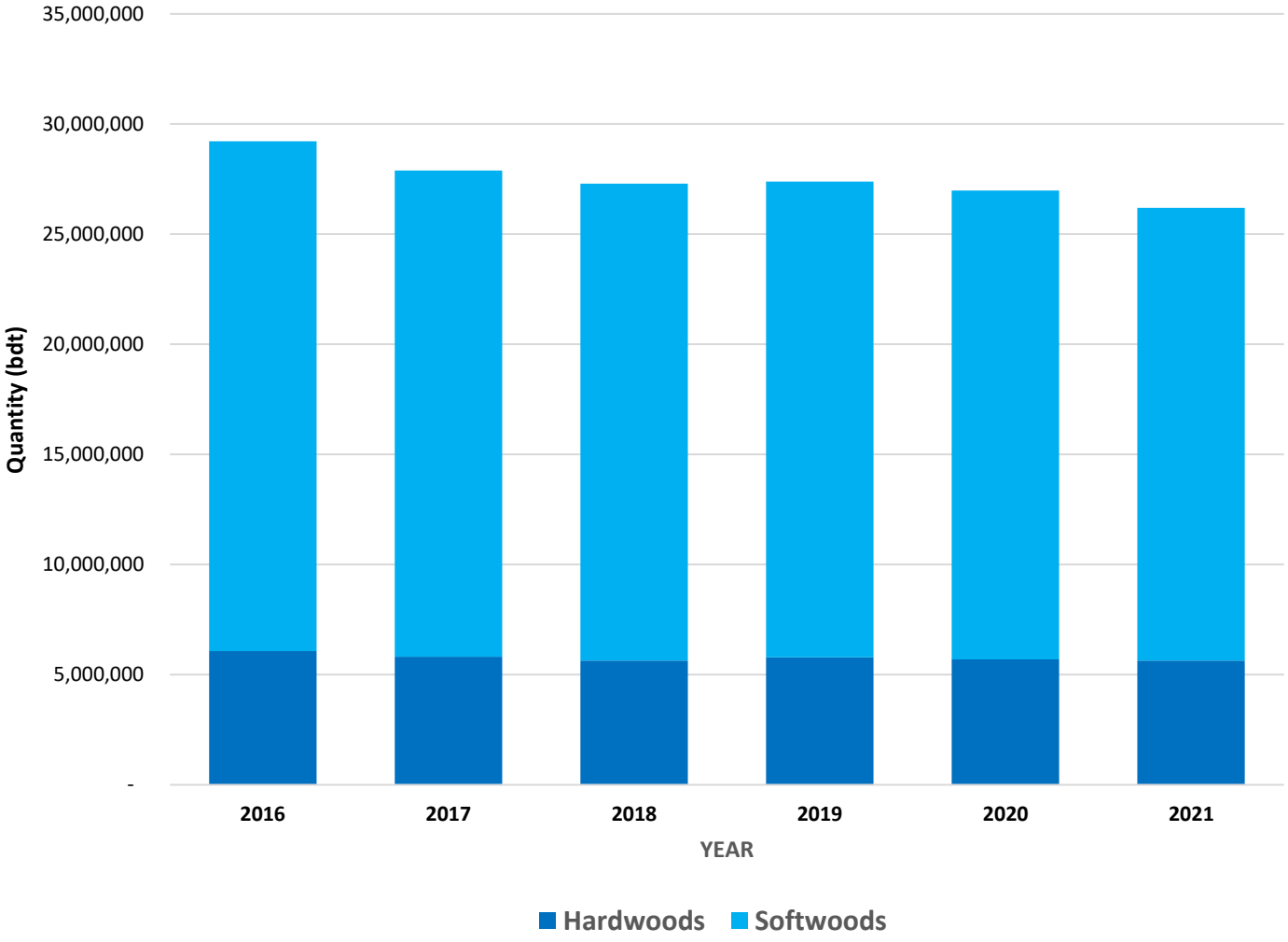
SECTION E: TABLES AND FIGURES

Figure E-1. Above Ground Biomass of All Live Trees in the Supply Zone (2016-2021)[31]



[31] apps.fs.usda.gov/fiadb-api/evalidator. Variable 13: Aboveground biomass of live trees (at least 1 inch d.b.h./d.r.c.), in dry short tons, on timberland

Figure E-2: Above Ground Biomass of Live Pulpwood Size Trees in the Supply Zone (2016-2021)[32]



[32] Ibid.

Figure E-3. Percent Merchantable Biomass of Standing Live Trees by Ownership[33]

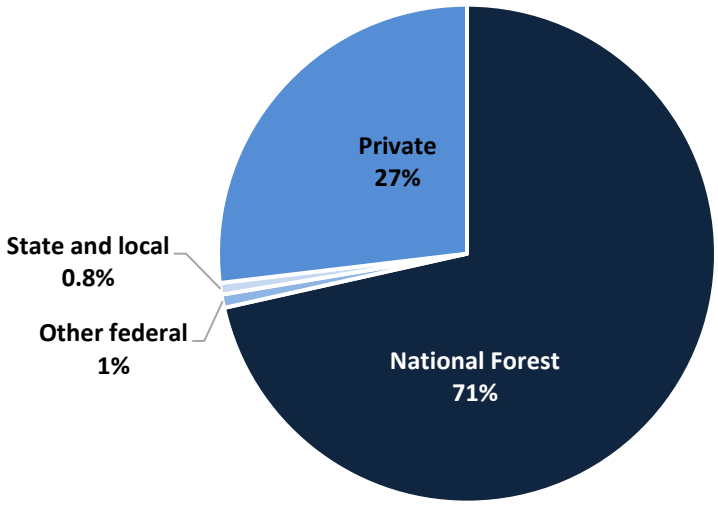
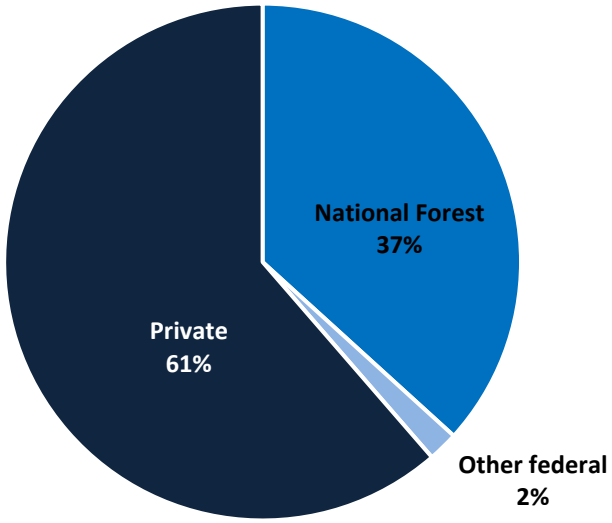


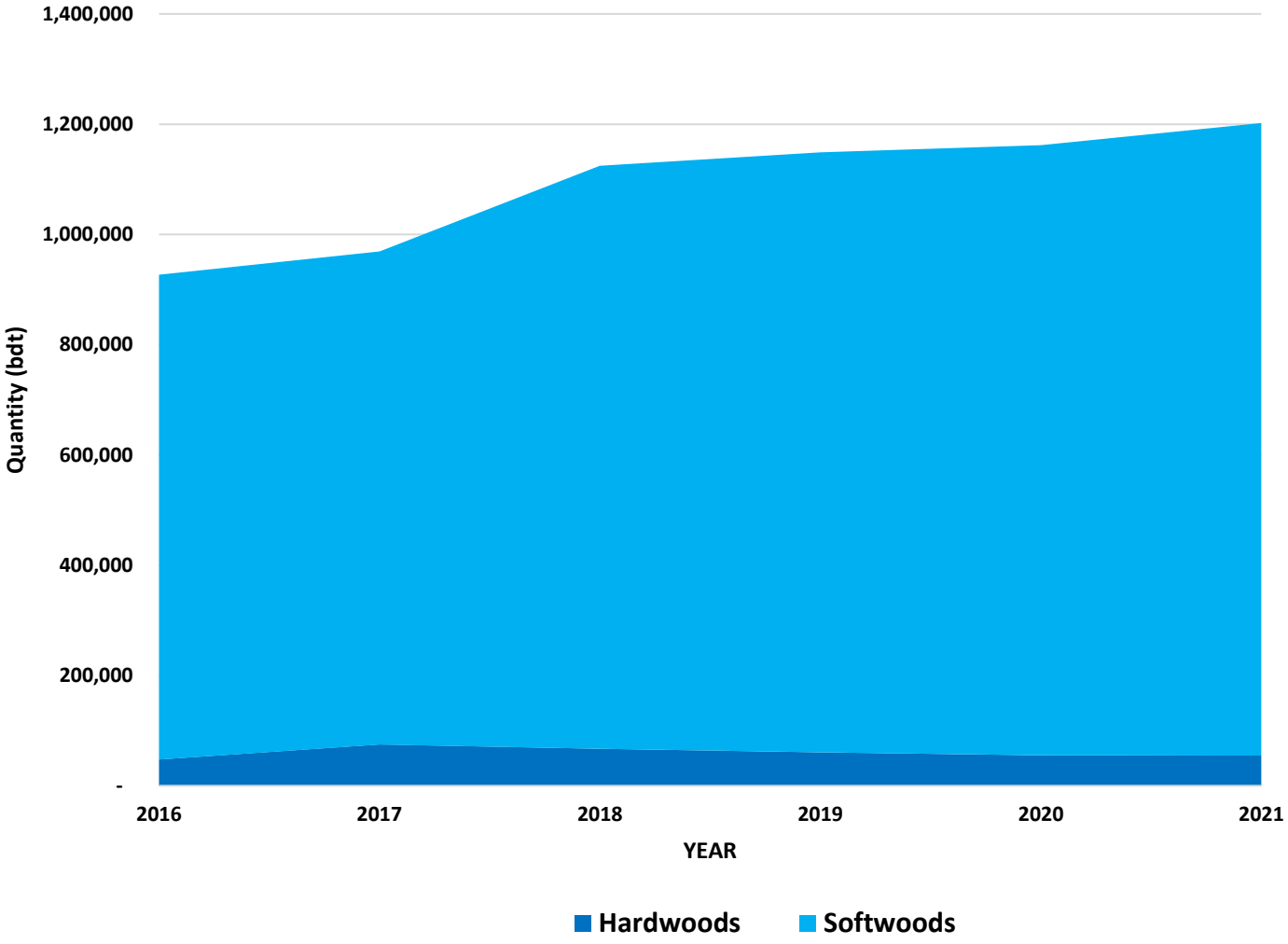
Figure E-4. Percent Timber Removal by Ownership[34]



[33] Ibid.

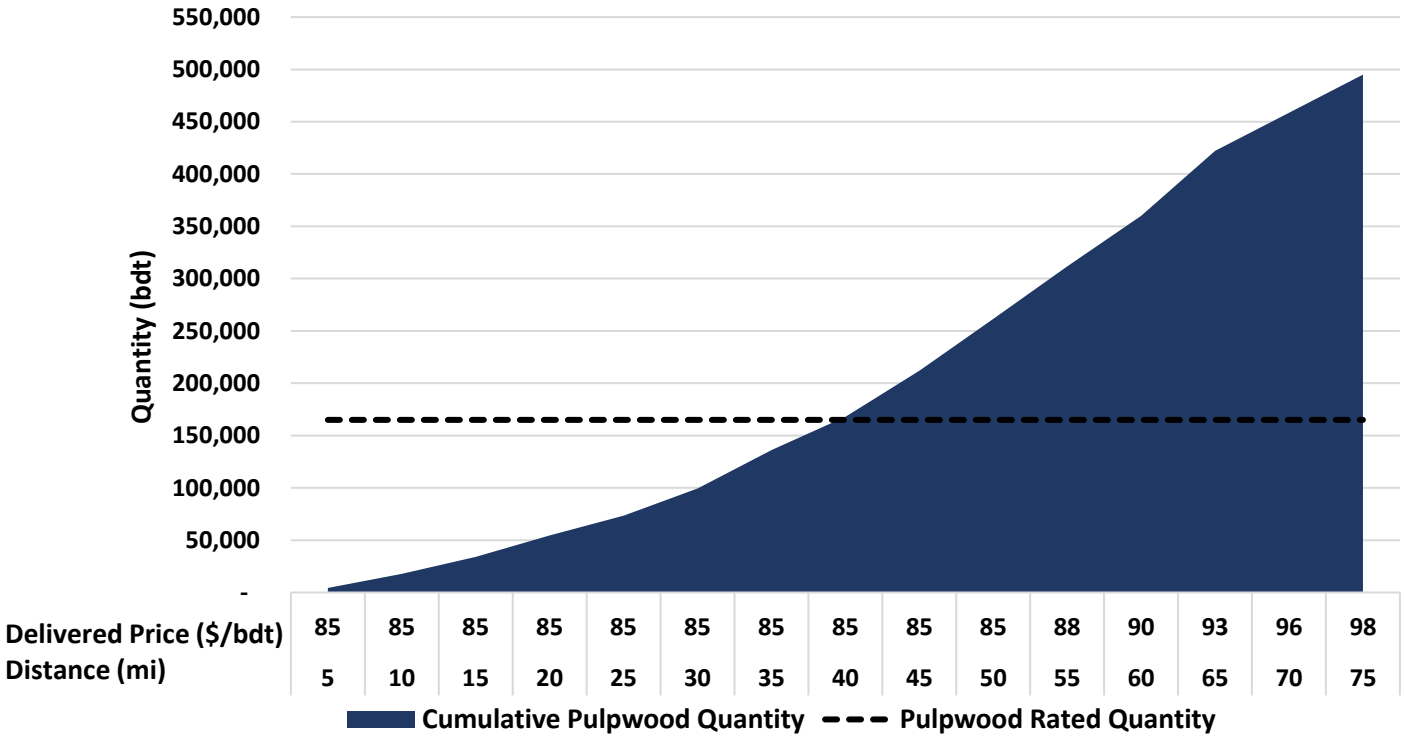
[34] apps.fs.usda.gov/fiadb-api/evalidator. Variable 574049: Average annual removals of merchantable bole bark and wood biomass of growing-stock trees (at least 5 inches d.b.h.), in dry short tons, on timberland

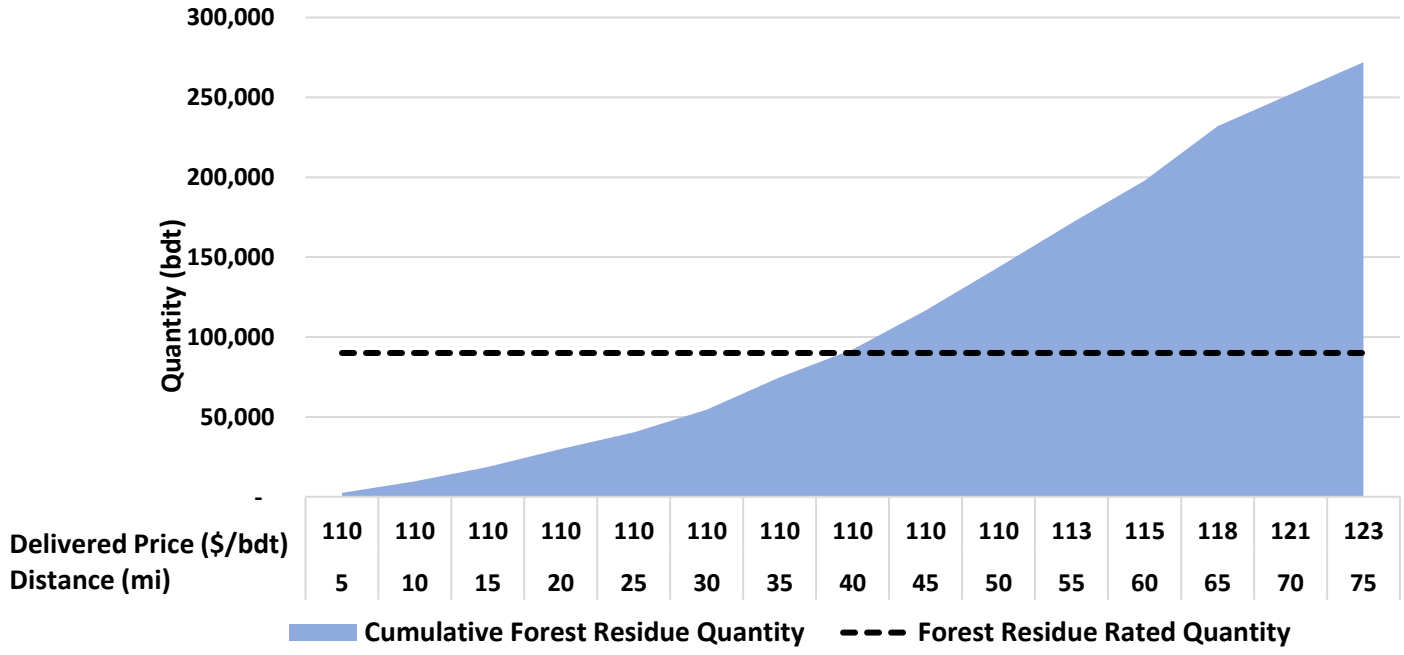
Figure E-5. Average Annual Removals in the Supply Zone[35]



[35] Ibid.

Figure E-6. Supply/Marginal Cost Curves for Pulpwood (top) and Forest Residues (bottom) in the Supply Zone[36]





[36] apps.fs.usda.gov/fiadb-api/evalidator

Figure E-7. Historical Diesel Prices ($/gal) and Trendline in California (2015-2026)[37]

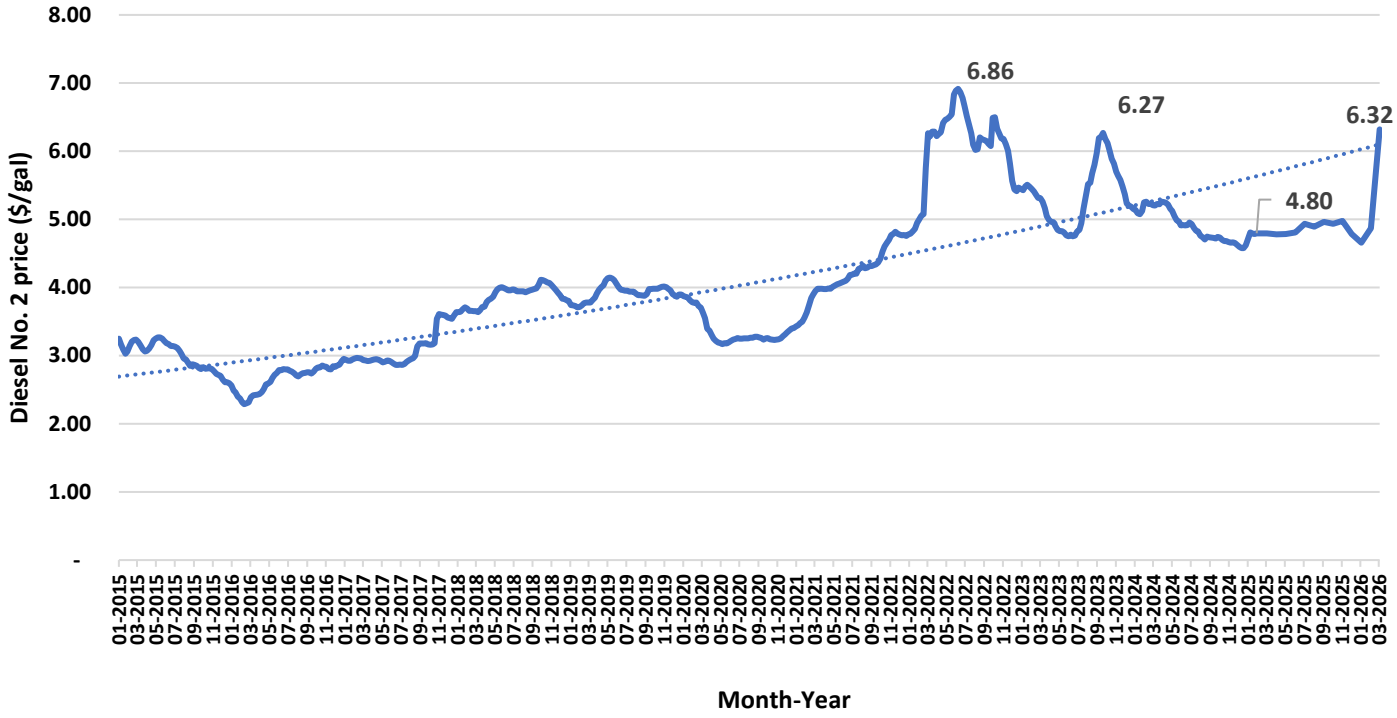
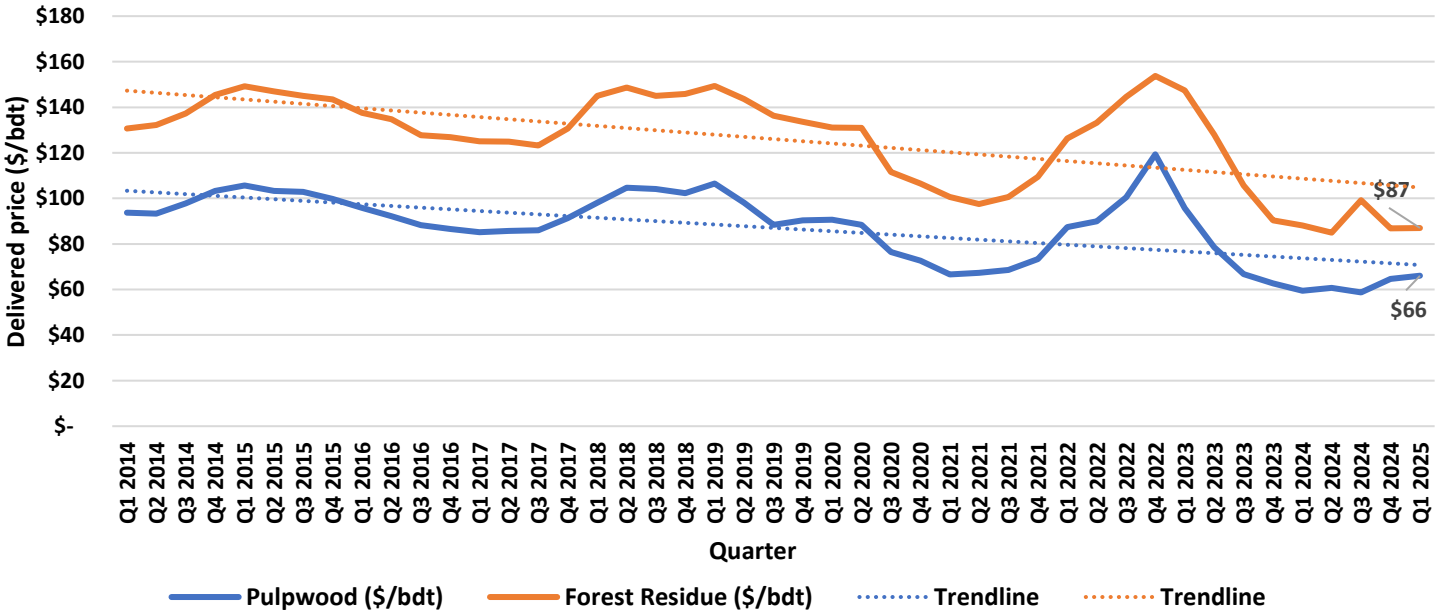


Figure E-8. Pulpwood and Forest Residue Market Prices (Forisk 2044-25 Reports, Pacific Northwest)



[37] https://www.eia.gov/dnav/pet/pet_pri_gnd_dcus_sca_w.htm

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