

# Supply Base Report Template for Biomass Producers

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## Completed in accordance with the Supply Base Report Template Version 1.3

*For further information on the SBP Framework and to view the full set of documentation see*

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*Document history*

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# 1 Overview

Producer name: Texas Pellets Inc. / German Pellets Texas, LLC (“TPI”)

Producer location: 164 County Road 1040, Woodville, Texas 75979, USA

Geographic position: 30.742416 North latitude / -94.432343 West longitude

Primary contact: Mr. Corey Gallagher, RPA Advisors, LLC

Company website: *[Pending]*

Date report finalised: 15/MAR/2019

Close of last CB audit: Closing Meeting of Main (Initial) on-site Evaluation with CB (see below) scheduled for May 1<sup>st</sup>, 2019, in Woodville, Texas

Name of CB: SCS Global Services

Translations from English: NA

SBP Standard(s) used: Standard 1 version 1.0, Standard 2 version 1.1

Weblink to Standard(s) used: <http://www.sustainablebiomasspartnership.org/documents>

SBP-Endorsed Regional Risk Assessment: Not applicable

Weblink to SBE on Company website: *[Pending]*

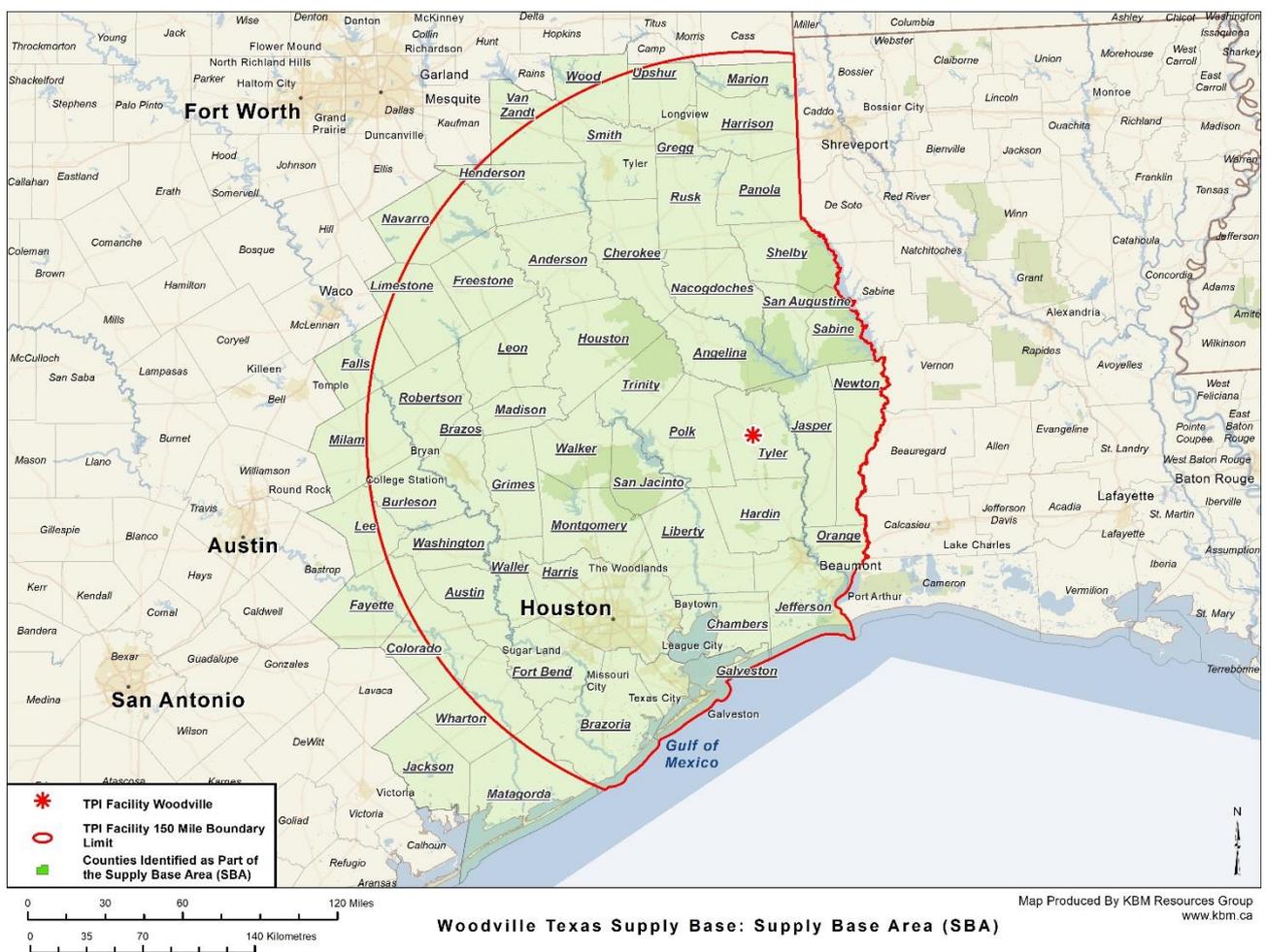
Indicate how the current evaluation fits within the cycle of Supply Base Evaluations				
Main (Initial) Evaluation	First Surveillance	Second Surveillance	Third Surveillance	Fourth Surveillance
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

# 2 Description of the Supply Base

## 2.1 General description

TPI operates a pellet mill located in the town of Woodville, Texas. Woodville is situated in East Texas, in relative proximity to both the Gulf of Texas and the state line with Louisiana, in a rural area with both agriculture and forestry present on the local landscape. The mill has a name-plate capacity of 500,000 metric tons per annum. Woodville is located in a region with a tradition of an active forest products industry, and in addition to primary sources of raw material (i.e. forest harvesting), there are secondary sources of fiber available to the mill, such as sawmill residuals. TPI has determined its Supply Base to be a 150-mile radius from its Woodville facility, within Texas. (No fiber is sourced from Louisiana at the present time).

**Figure 1. TPI's Supply Base**



The greater part of the forested landbase upon which the mill draws consists of pine plantations, rather than natural forestry operations, and Southern Yellow Pine as an industry-accepted group of species is the primary (if not exclusive) source of fiber for the Woodville mill. This means in practice a large proportion of Loblolly Pine (*Pinus taeda*), although minor amounts of Longleaf Pine (*Pinus palustris*), Shortleaf Pine (*Pinus echinata*), and Slash Pine (*Pinus elliottii*) may be included in the species mix, as well as a very small amount of hardwoods for fuel.

In terms of tenure, the vast majority of forestry operations in the region are located on private land, whether in the holdings of large corporate entities (principally TIMOs, or Timber Investment Management Organizations), or Non-Industrial Private Forests (NIPFs), the latter often being family-owned.

Fiber for the Woodville mill is sourced entirely through a contracted procurement company, North American Procurement Company, or 'NAPCO'. NAPCO sources primary material based either on the purchase of timber on the stump (with harvesting managed and/or contracted by NAPCO), or the purchase of volume offered for purchase as part of the off-take of a harvesting operation managed by another entity. In either scenario, the fiber consists of small-diameter and/or low-quality product, whether roundwood or residual material. The key point is that merchandising of wood products typically means that higher quality (and or larger diameter) wood is forwarded to saw-mills or other facilities, with only part of the harvest ending up at the pellet mill.

Forestry practices in the region are dictated to a great extent by the management priorities of landowners, whether (for example) there is a focus on hunting, and provision of habitat for game species, or primary emphasis on timber production. Forestry is the responsibility of the State of Texas, although there is Federal oversight particularly in the area of Rare, Threatened, and Endangered species (US Fish and Wildlife Service), and navigable waters (Environmental Protection Agency). The Texas Forest Service provides support to landowners through tax incentives or cost sharing for conservation projects and also by providing access to forest management decision-making tools (thinning scheduler, timber investment calculator), and other resources publicly available on their website.<sup>1</sup>

Forest harvesting in the region is almost entirely mechanized at this juncture, certainly for industrial operations (as opposed to manual harvesting using a chainsaw), and silviculture is typically based on even-aged systems of plantation management, with several interventions culminating in a final harvest and subsequent reforestation, with supplementary planting (artificial regeneration) a common practice.

The conservation of forest soils and water resources, as well as wildlife values including nesting sites and the like are protected by both federal and state-level legislation in the US. Management regimes that go 'beyond compliance' are promoted by voluntary certification systems present in the region, such as the Sustainable Forestry Initiative® (SFI), American Tree Farm System® (ATFS), and the Forest Stewardship Council® (FSC®); the former two are by far the most prevalent. Best Management Practices, or BMPs, even in the absence of third-party certification, are promoted by SFI State Level Implementation Committee (SCI) training, as well as by state-level forestry bodies; the Texas Pro Logger Program is a case in point.

The Texas Forest Service (TFS) provides assistance and incentives to landowners to manage their properties for the protection of Threatened and Endangered (T&E) species. These programs range from

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<sup>1</sup> <http://tfsfrd.tamu.edu/tdss/>

simply providing the landowner with technical assistance to take actions in their property to improve/protect habitat, to financial and tax incentives to implement conservation plans. The TFS has developed guidelines for the protection of habitat (available on the TFS website). Most of the activities for landowners in forested landscapes focus on leaving buffer zones around identified T&E habitat, protecting late successional bottomland woodlands and natural regeneration, restoring Longleaf pine, and implementing prescribed burning with professional support, etc. These activities can be part of a conservation plan and be eligible for financial support or tax incentives.<sup>2</sup>

## **Company Overview**

TPI operates a pellet mill located in Woodville, Texas. The pellet plant is located on a brownfield site formerly used for a chip mill operation. The plant will produce approximately 500,000 metric tons of pellets, which are transported by truck to be loaded onto ships at ports on the Gulf of Mexico. TPI has a contract with NAPCO to conduct all direct procurement activities. NAPCO purchases roundwood directly from landowners for delivery into the pellet plant. NAPCO also executes contracts with gatewood suppliers and with area sawmills for the delivery of residual chips and sawdust. NAPCO is in possession of PEFC Chain of Custody certification, to enable the company to pass along valid certification claims to TPI, where applicable.

TPI has a number of SFI-certified landowners within its procurement basin; including The Campbell Global, Hancock Forest Management Group, Resource Management Service, Molpus Timberlands, and Rayonier. Several large landowners included in group tree farm programs are also located in the region. These landowners are expected to provide a considerable portion of roundwood to the plant. Roundwood consists almost entirely of pulpwood from thinnings and clearcuts.

## **Forest Resources**

East Texas is the principal forest region in Texas extending from Bowie and Red River counties in northeast Texas to Jefferson, Harris, and Waller counties in southeast Texas. There are 12.1 million acres of forestland of which 11.9 million acres are classified as productive timberland and produce nearly all of the state's commercial timber.<sup>3</sup>

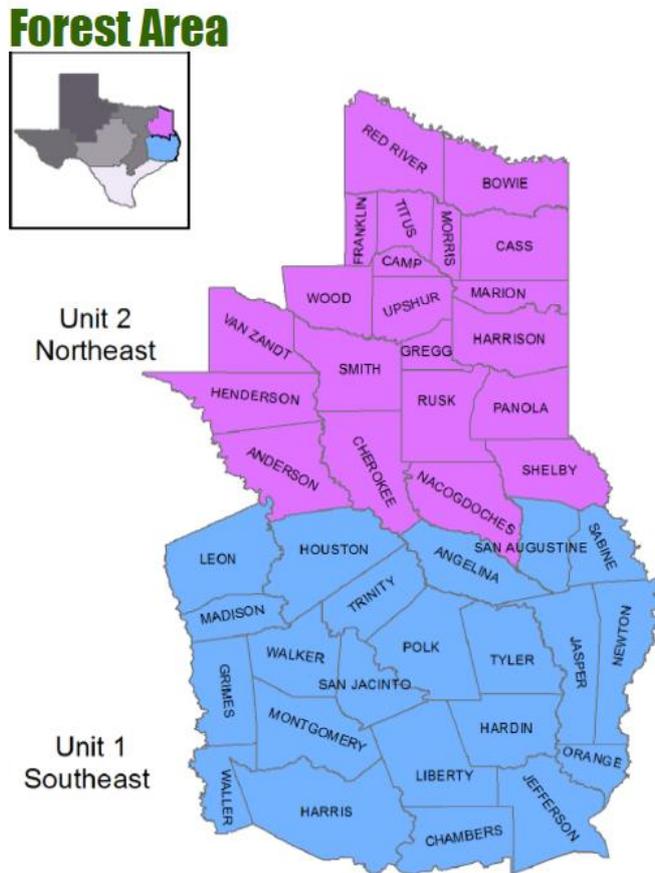
Ninety-two percent of East Texas timberland is owned by approximately 210,000 private individuals, families, partnerships, corporations, forest-products companies, and timber investment groups. The remaining 8 percent is owned by federal, state, and local governments.

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<sup>2</sup> <http://tfsweb.tamu.edu/wildlifemanagement/non-game/>

<sup>3</sup> Texas Almanac – Forest Resources. <https://texasalmanac.com/topics/environment/forest-resources>

Figure 2. Counties in East Texas<sup>4</sup>



Loblolly-shortleaf pine is the most dominant forest-type group on timberland covering 5.4 million acres, about 45% of the timberland in East Texas (see fig. 3 above) and 52% of all artificially regenerated areas (about 2.8 million acres). About 26 percent (3.1 million acres) of the timberland area was artificially regenerated, with softwood forest types being more heavily represented.

<sup>4</sup> Source: United States Department of Agriculture (USDA) – Forest Service. 2018. Forests of East Texas 2016. Resource Update FS 151

**Figure 3. Distribution of Timberland by Forest Type Group in East Texas<sup>5</sup>**

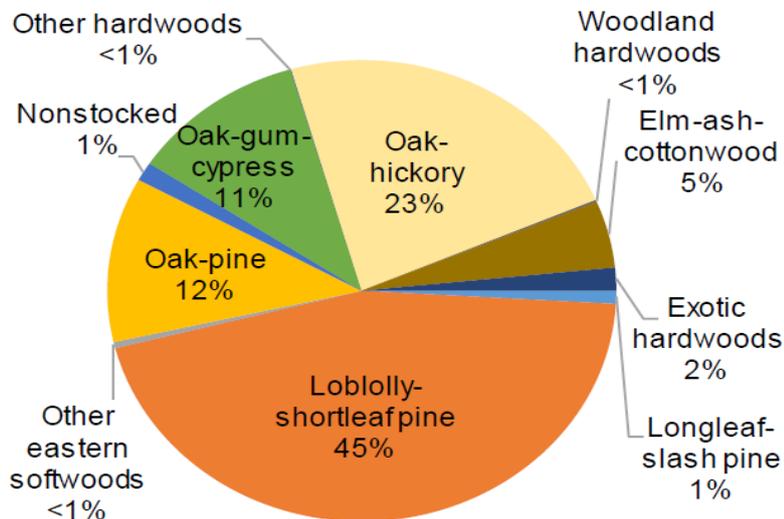


Figure 3—Distribution of timberland by forest-type group, east Texas, 2016. Total area = 11.9 million acres.

### Growth - Drain Ratio

From 2015 to 2016 the growth of softwoods and hardwoods increased, however mortality rates and removals have also increased impacting the net growth and net change, to varying degrees. In the case of softwoods, the mortality has increased each of the last 5 years. This has resulted in reduced net growth (growth less mortality) as well as reduced net change (net growth less removals). Despite the reduction in net change, the growth-drain ratio is still positive for softwoods. At the macro level, productivity for softwood is increasing. Recent Forest Inventory and Analysis (FIA) for East Texas shows a net growth of softwood (i.e. growth is greater than removals and mortality combined)<sup>6</sup>.

In addition, a growth and drain study was performed for TPI with similar results (see figure 3 above). In addition, TPI commissioned a growth: drain study (prepared by NAPCO) for its Supply Base, that confirms the results of the inventory for all of East Texas. In NAPCO's study, the growth-drain ratio is positive for softwoods but negative for hardwoods<sup>7</sup>. In conclusion, there is net growth of the main species group (softwood, i.e. Southern Yellow Pine) utilized by TPI.

The situation is different for hardwood species. For these species, mortality and removals have been higher than net growth each of the last 5 years and the net change has been negative for all 5 years. However, mortality, and associated reduced net volumes, do appear to be levelling off and heading in a positive

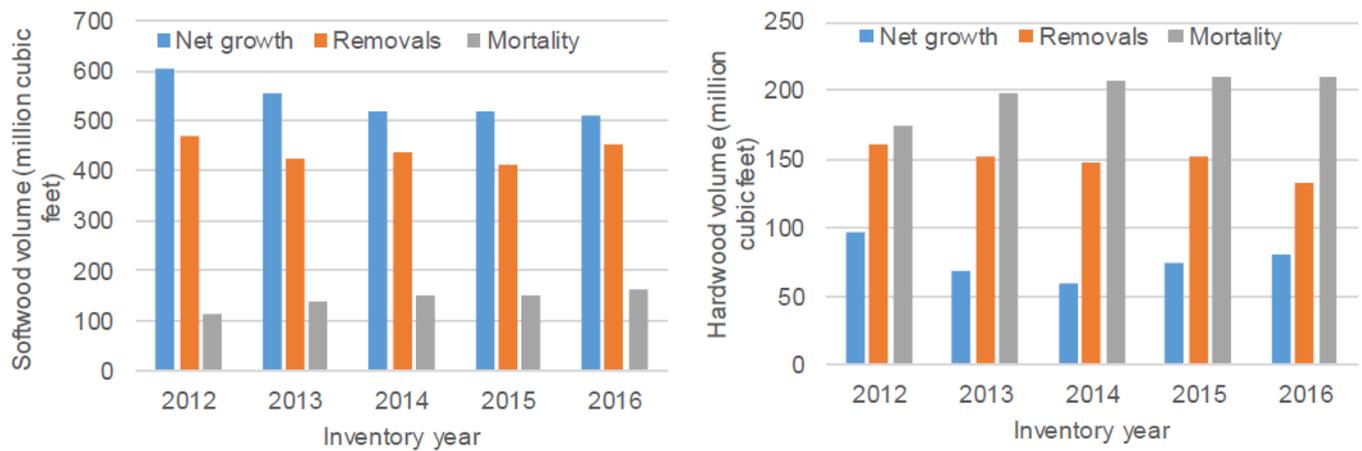
<sup>5</sup> United States Department of Agriculture (USDA) – Forest Service. 2018. Forests of East Texas 2016. Resource Update FS-151.

<sup>6</sup> United States Department of Agriculture (USDA) – Forest Service. 2018. Forests of East Texas 2016. Resource Update FS-151.

<sup>7</sup> NAPCO. August 2018. Growth and Drain Forecast for German Pellets Texas.

direction. In 2015 mortality was at 209.7 million cubic feet with net growth at 73.4 million cubic feet, while in 2016 mortality was at 209.2 and net growth at 80.3 million cubic feet as illustrated below.<sup>8</sup>

**Figure 4. Net Growth, Removals and Mortality of softwood and hardwood species<sup>9</sup>**



### Forest Management Practices

Texas forests include 2.6 million acres of pine plantations, 62 percent of which are on industrially managed land, 34 percent on non-industrial private land, and 4 percent on public land. Typically, pine plantations are planted at a density of 622 trees/acre. In order to maximize return on investment and as a control measure for the Southern Pine Beetle, thinning (a partial harvest of trees) is carried out when trees achieve 6 inches diameter at breast height (dbh) and are about 40 feet tall. Usually southern pines are thinned between the ages of 12-15 years with a final cut approximately at age 25 or more. This regime allows for a better return on investment by producing pulpwood from thinning, and high quality sawlogs or veneer at final cut<sup>10</sup>.

In terms of actual harvest operations, the Texas Forestry Association in conjunction with the Texas Forest Service published the Texas Forestry Best Management Practices (BMPs). The Texas Forestry Association runs a training program for loggers called Pro-Logger Program and issues a certificate to those who complete the training. Training includes basic silviculture, health and safety as well as the Forestry BMPs (harvest design, road construction, installation of culverts, Streamside Management Zones, etc.).

TPI sources low grade raw material from southern pine plantations in accordance with its purchasing policy and procedures. The company gives preference, where possible, to the purchase of woody raw material coming from forest tracts that are independently certified under internationally-recognized sustainability standards (FSC® and SFI® Forest Management standards). For non-certified woody raw material, TPI is PEFC chain of Custody certified, and operates a Due Diligence system to avoid procuring from controversial sources.

<sup>8</sup> United States Department of Agriculture (USDA) – Forest Service. 2018. Forests of East Texas 2016. Resource Update FS-151

<sup>9</sup> United States Department of Agriculture (USDA) – Forest Service. 2018. Forests of East Texas 2016. Resource Update FS-151

<sup>10</sup> Ronal Billings. Texas Forest Service. Thinning Workshop 2008: Thinning Pine Plantations: Why, When and How.

## The FSC US National Risk Assessment

In the United States, a National Risk Assessment (US-NRA) consistent with the FSC Controlled Wood Standard has been carried out. In December 2018, the FSC US NRA received conditional approval from FSC International, and on January 24, 2019. A final draft was submitted to FSC International with supplementary information aimed at addressing the conditions for approval<sup>11</sup>. In this context, TPI has adopted the results of this Risk Assessment for use as a coarse filter in screening of supply chain risk in its Supply Base.

The FSC US National Risk Assessment (NRA) covers the following categories of risk:

- ☐ Illegally harvested wood;
- ☐ Wood harvested in violation of traditional and human rights;
- ☐ Wood from forests where high conservation values are threatened by management activities;
- ☐ Wood from forests being converted to plantations or non-forest use; and
- ☐ Wood from forests in which genetically modified trees are planted.

The US-NRA makes risk designations for each of these categories. TPI applies these results to its Supply Base. It should be noted that the US-NRA provides good baseline information, yet the supply chain Due Diligence is not restricted to the use of the US-NRA; other resources have been drawn upon, as deemed necessary to provide an adequate level of detail, and at an appropriate scale.

## Rare, Threatened, and Endangered Species (RTE), and Vulnerable Ecosystems

The Specified Risk designations that affect TPI's Supply Base include:

- ☐ Category 3 - High Conservation Values:
  - ☐ Houston Toad Critical Habitat (HCV1);
  - ☐ Late Successional Bottomland Hardwood Areas (HCV3);
  - ☐ Native Longleaf Pine Systems (HCV3).
- ☐ Category 4 - Conversion to non-forest use or plantations: There are two counties in Texas that have been identified by the US-NRA process as being at risk for conversion: Liberty and Montgomery counties.

In addition to the results of the FSC US-NRA, the SBE makes use of additional data from a number of sources to further refine the identification of biodiversity and other values at the landscape level, and to facilitate the mitigation of potential impacts of fiber procurement on these. The main source of information used is the US Fish & Wildlife Service' Endangered Species database, including the Information for Planning and Conservation (IPaC) tool. Each County within TPI's SBE was scanned to identify RTE critical habitat. Through the scan it was determined that two counties had critical habitat: Burleson County (Houston Toad), and Sabine County (Texas Golden Glade). As a result, there is a risk that some of the woody raw material may come from tracts in Texas with a specified-risk designation. TPI implements procedures to ensure that all woody raw material comes from forest tracts assessed as low-risk for all categories. This

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<sup>11</sup> FSC US website: <https://us.fsc.org/en-us/certification/controlled-wood/fsc-us-controlled-wood-national-risk-assessment-us-nra>

means that the woody raw material comes from counties assessed as low-risk in the SBE or that through field verification it can be determined that a specific tract does not threaten the values identified.

### Regional Socio-Economic Conditions<sup>12</sup>

Texas has more than 63.4 million acres of forests and East Texas accounts for 19.4% (12.3 million acres). However, in terms of productive timberlands Texas has 14.3 million acres and East Texas accounts for 85% of productive timberlands. The forest sector is an important contributor to the regional economy and is ranked in the top 10 manufacturing sectors in Texas. Texas has the largest forest sector of all 13 southern states in terms of total employment, economic output, and labor income between 2004 and 2009. The value of harvested timber ranked ninth among Texas top agricultural commodities in 2015. The Texas forest sector includes the following sub-industries: forestry, logging, primary solid wood products, secondary solid wood products, primary paper and paperboard products, and secondary paper and paperboard products. The Texas forest sector contributed \$32.5 billion in industry output to the state economy in 2015. Value-added was \$12.7 billion, 39 percent of the total industry output. The Texas forest sector generated 144,583 jobs and created \$8.4 billion in labor income.

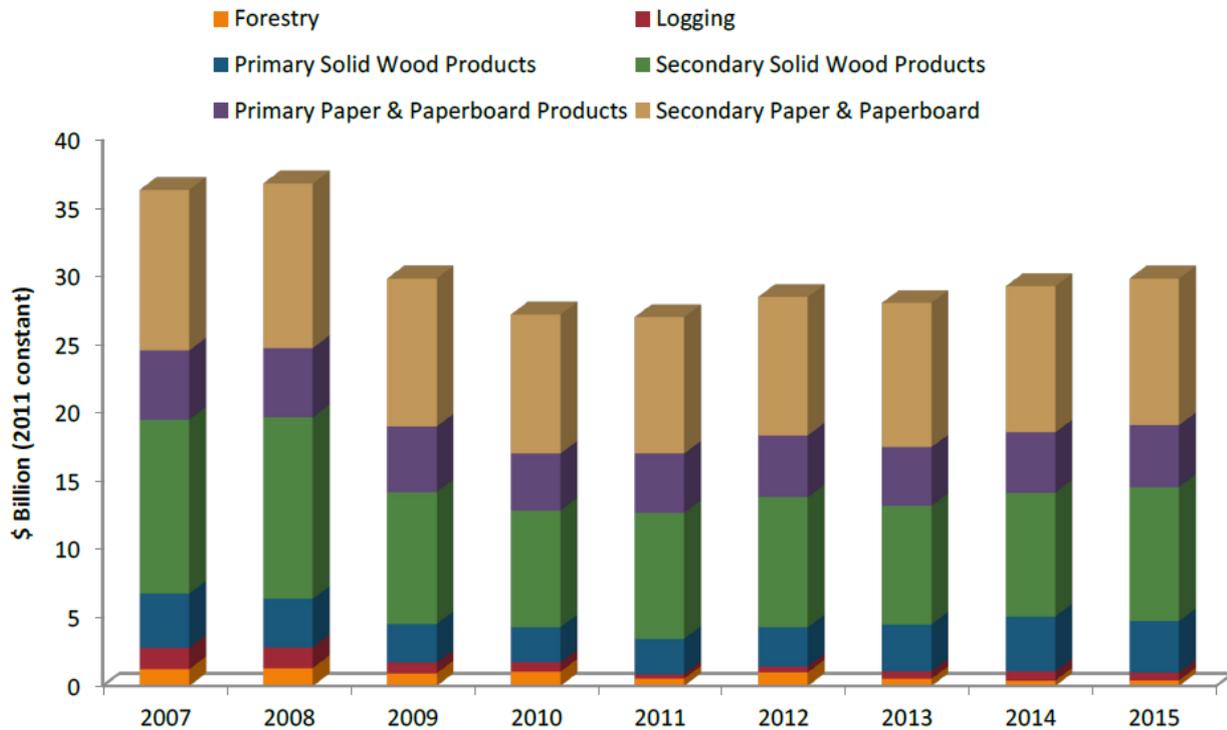
**Figure 5. Direct and Total Economic Contributions of the Texas Forest Sector**

Sub-industry	Industry Output (\$ million)	Value-Added (\$ million)	Employment (jobs)	Labor Income (\$ million)
<b>Direct Contribution</b>				
Forestry	259.28	228.88	2,256	142.49
Logging	356.75	216.21	4,231	211.54
Primary Solid Wood Products	2,370.80	528.90	6,959	378.38
Secondary Solid Wood Products	5,842.01	1,866.82	35,516	1,621.24
Primary Paper & Paperboard Products	2,513.78	513.97	2,922	318.49
Secondary Paper & Paperboard Products	6,997.98	1,572.70	14,210	1,056.89
<b>Total</b>	<b>18,340.60</b>	<b>4,927.48</b>	<b>66,093</b>	<b>3,729.04</b>
<b>Total Contribution</b>				
Forestry	434.39	326.87	3,382	200.51
Logging	615.56	364.78	5,872	297.51
Primary Solid Wood Products	4,341.70	1,610.68	17,282	1,015.74
Secondary Solid Wood Products	10,756.93	4,595.96	64,259	3,273.54
Primary Paper & Paperboard Products	4,858.50	1,792.99	14,580	1,070.18
Secondary Paper & Paperboard Products	11,537.27	4,060.45	39,209	2,549.07
<b>Total</b>	<b>32,544.36</b>	<b>12,751.71</b>	<b>144,583</b>	<b>8,406.54</b>
<b>SAM Multiplier</b>				
Forestry	1.68	1.43	1.50	1.41
Logging	1.73	1.69	1.39	1.41
Primary Solid Wood Products	1.83	3.05	2.48	2.68
Secondary Solid Wood Products	1.84	2.46	1.81	2.02
Primary Paper & Paperboard Products	1.93	3.49	4.99	3.36
Secondary Paper & Paperboard Products	1.65	2.58	2.76	2.41
<b>Total</b>	<b>1.77</b>	<b>2.59</b>	<b>2.19</b>	<b>2.25</b>

Numbers in columns may not sum to totals due to rounding.

<sup>12</sup> This section was prepared based on the following document and statistics: Parajuli, R., R. Zehnder, and A Burl Carraway. 2017. Economic Impact of the Texas Forest Sector 2015. Sustainable Forestry Department, College Station, Texas A&M Forest Service.

**Figure 6. Total Economic Output by Sub-industry 2007-2015**



The largest outputs were from secondary forest products (wood windows/doors and mill work, wood containers, wood buildings, other wood products, furniture, paperboard containers, coated and treated paper and packaging materials, etc.). Most of the secondary forest products manufacturing facilities are located in North Central Texas. Nearly three-quarters of all forestry and logging industries and the majority of the primary forest products industries reside in East Texas.

In terms of ownership, family forest landowners account for about 53 percent of all timberland. In the last decade a new trend emerged whereby timberlands held by corporations that owned wood processing facilities have been transferred, to entities that do not own wood processing facilities such as TIMOs (Timberland Investment Management Organizations) and REITs (Real Estate Investment Trusts). These corporations account for 24% of timberland in East Texas. Other private ownership classes (i.e. nonindustrial corporate excluding TIMOs and REITs, unincorporated, Native American, and nongovernmental organizations) account for slightly more than 15 percent of all timberland. About eight percent of timberland is publicly-owned.

**TPI’s Feedstock**

TPI purchases different types of raw material (roundwood, sawdust, and chips). TPI has a long-standing contract with the North America Procurement Company (NAPCO) as its sole supplier of woody raw material and operates (when acting on TPI’s behalf) in strict compliance with TPI’s Procurement Policy and Procedures. TPI is in possession of PEFC CoC certification, and therefore is required to operate a Due Diligence System (DDS); the same applies to NAPCO, in turn, as a PEFC CoC-certified entity. The following list includes key suppliers (including those supplying through contractual arrangements with NAPCO):

Name of the Company	Certificate Number
North American Procurement Company	NSF-PEFC-COC-C0476011
Texmark Timber Treasury L.P	SFI BV-SFIS-US012302-1
Hancock Forest Management	SFI BV-SFIS-US009410-1
Resource Management Service (RMS)	SFI BV-SFIS-US004937-1
Rayonier Advanced Materials	SFI BV-SFIS-US001994-1
Molpus Timberlands Management	SFI BV-SFIS-US004070-4
GreenWood Resources	SFI BV-SFIS-US008620-1

The TPI mill was not operating for a number of months commencing April 2017, due to the impact of fire damage at the company’s port facility. The company only began procuring wood as of March 2019 after restarting production under a tolling agreement in November 2018. The table below illustrates the expected mix of products, going forward, based on past experience, availability, and more recent activity.

Feedstock	Biomass %	Certification	Sustainability %	Legal %	List of Species in raw material
Thinning commercial – merchantable to other markets (e.g. pulpwood for paper industry)	56%	Forest Management (20%)	80%	100%	See below
Low grade roundwood (Conifer)	6%	Forest Management (20%)	80%	100%	See below
Saw mill residue (timber processing residue)	36%	N/A	100%	100%	See below
Saw dust (timber processing residue)	2%	N/A	100%	100%	See below

Loblolly (Pinus Taeda), Longleaf (Pinus Palustris), Shortleaf (Pinus Echinata), Slash (Pinus Elliotti)

## Commitment to Responsible Sourcing

TPI as a company is committed to operating a high-quality biomass processing facility, and to promoting the development of energy generation from renewable sources, notably industrial wood pellets. To that end, TPI's Procurement Policy is designed to ensure that the forestry residues (roundwood), and process residues (sawdust, shavings, off-cuts and chips) utilized in the manufacturing process at the mill are sourced from forests where actual and potential environmental, social and economic impacts are taken into consideration. The company's intent is to manage and mitigate any potential negative impacts to the greatest extent possible, based on the risk-based evaluation of what these impacts may be. TPI, through its purchasing practices, furthermore aims to encourage and contribute to the sustainable management of the forested landbase from which raw material is sourced (whether purchased directly, or via processing facilities), by incentivising responsible practices. TPI is PEFC certified (NSF-PEFC-COC-C0260394) and as such has a Due Diligence System (DDS) in place for the procurement of wood raw material. In addition, NAPCO, its sole supplier is also PEFC certified (NSF-PEFC-COC-C0476011) and as such also operates a DDS for fiber procurement.

Any and all activity related to the purchase of raw material must be consistent with TPI's Procurement Policy and its Guiding Criteria, and this is reflected in the company's internal documentation.

## 2.2 Actions taken to promote certification amongst feedstock suppliers

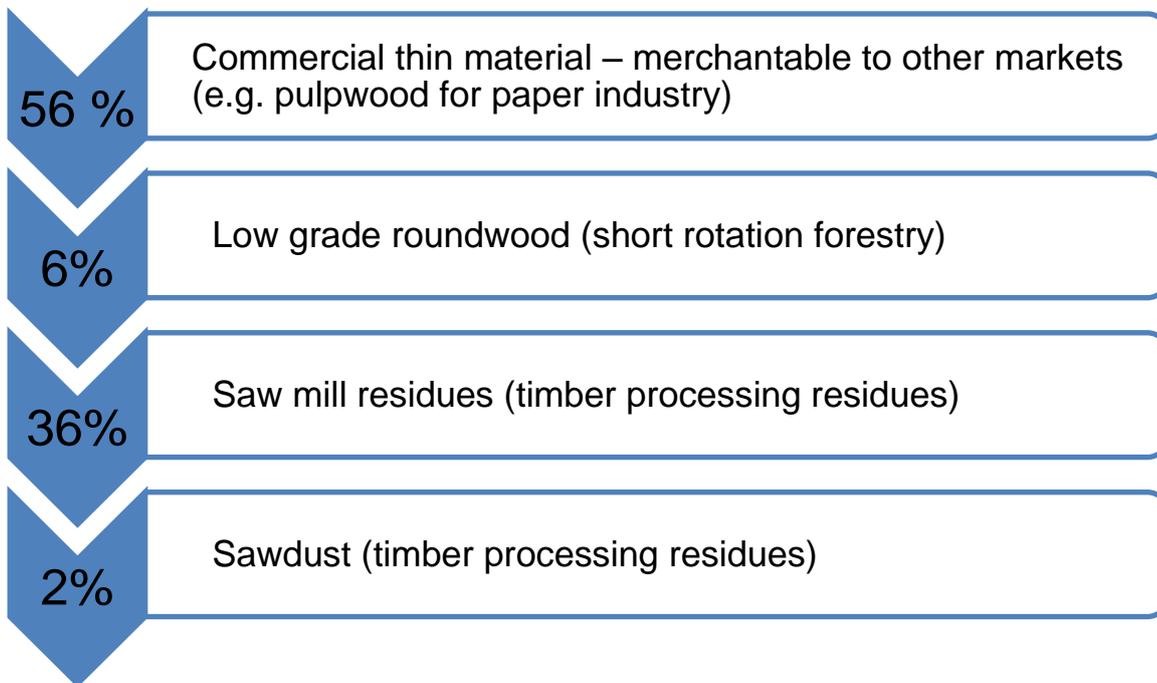
NAPCO, as exclusive fiber procurement entity for TPI's Woodville mill, provides information regarding SFI certification to all entities from whom fiber is procured.

## 2.3 Final harvest sampling programme

Primary suppliers (i.e. of roundwood) that enter into an agreement with NAPCO for the supply of fiber are subject to an inspection program utilizing TPI's Field Inspection Form. A final harvest sampling program will be undertaken to determine the proportion of final felling which end up in biomass compared to other end uses.

TPI will furthermore monitor the proportion of clear-felled tracts which ultimately are reforested, as far as is reasonably possible.

## 2.4 Flow diagram of feedstock inputs showing feedstock type [optional]



## 2.5 Quantification of the Supply Base

Provide metrics for the Supply Base including the following. Where estimates are provided these shall be justified.

### Supply Base

- Total Supply Base area (in hectares): 10,429,491 ha (Total area of all counties within the Supply Base).
- Forest Tenure by type (ha): (for East Texas):

Type of Ownership	Hectares	Percentage
Private	4,420,867	91.8%
Federal	298,577	6.2%
State	52,973	1.1%
County/Municipal	43,342	0.9%
<b>Total</b>	<b>4,815,759</b>	<b>100%</b>

c. Forest by type (ha):

Forest type	Hectares
Pine	2,215,249
Oak-hickory	1,107,625
Oak-pine	577,891
Oak-gum-cypress	529,733
Elm-ash, cottonwood	240,788
others	144473
<b>Total</b>	<b>4,815,759</b>

d. Forest by management type (ha): plantation/managed natural:  
 52% of pine stands (1,157,400 hectares) are managed under a plantation regime. The rest of the pine-producing areas are managed under a natural regeneration regime.

e. Certified forest by scheme (ha): (e.g. hectares of FSC or PEFC-certified forest).

An estimated 20% of raw material comes from PEFC/SFI certified forests.

## Feedstock

At this stage (March 2019), TPI has re-initiated the purchasing of raw material and production. The numbers here are for the last full 12-month operating period, of April 1, 2016 - March 31, 2017.

f. Total volume of Feedstock: tonnes or m<sup>3</sup>: 458,546.22 Metric tonnes.

g. Volume of primary feedstock: tonnes or m<sup>3</sup>: 287428 metric tonnes of roundwood.

h.

- 20% Certified to an SBP-approved Forest Management Scheme (SFI/PEFC)
- 80% Not certified to an SBP-approved Forest Management Scheme

i. List all species in primary feedstock, including scientific name:

Loblolly Pine (Pinus Taeda), Longleaf Pine (Pinus Palustris), Shortleaf Pine (Pinus Echinata), and Slash Pine (Pinus Elliotti).

- j. Volume of primary feedstock from primary forest: 0.0
- k. List percentage of primary feedstock from primary forest (j), by the following categories. Subdivide by SBP-approved Forest Management Schemes:
  - 0% Certified to an SBP-approved Forest Management Scheme (SFI/PEFC)
  - 0% Not certified to an SBP-approved Forest Management Scheme
- l. Volume of secondary feedstock: specify origin and type - the volume may be shown as a % of the figure in (f) and percentages may be shown in a banding between XX% to YY% if a compelling justification is provided\*.
 

Secondary feedstock:

  - 9,217 metric tonnes of sawdust and shavings
  - 160,262 wood chips and offcuts
  - 94.5% of secondary feedstock was supplied by PEFC Chain of Custody certified suppliers.
  - 5.5% of secondary feedstock was supplied with no certification but procured under TPI's PEFC certification, was subject to the company's Due Diligence System.

No tertiary material is purchased by TPI.

### 3 Requirement for a Supply Base Evaluation

SBE completed	SBE not completed
<input checked="" type="checkbox"/>	<input type="checkbox"/>

In the absence of an SBP-endorsed Regional Risk Assessment for the southeast US, it was determined that an SBE should be completed. In a context of relatively low availability of fiber originating in third-party certified forest management units, the completion of an SBE is a key tool in supply chain risk mitigation.

## 4 Supply Base Evaluation

### 4.1 Scope

TPI holds a PEFC Chain of Custody certificate and operates a Due Diligence System (DDS) as per PEFC requirements. This provides the necessary level of confidence needed to claim all of its feedstock is SBP-Controlled at a minimum. TPI has completed a Supply Base Evaluation (SBE) to ensure that a sufficient

volume of woody raw material is SBP-compliant. TPI's SBE includes primary and secondary feedstock and no indicator was excluded. The company's policies and procedures are designed to ensure that the forestry residues (roundwood) and process residues (sawdust, shavings, off-cuts and chips) utilized in the manufacturing process at the mill are SBP-Compliant or SBP-Controlled. The definitions of legal and sustainable as used in Standard 1 have been reviewed and met, as substantiated in the SBE (See Annex 1).

Because there is no SBP-approved risk assessment in the US, TPI developed a set of Locally Applicable Verifiers (LAVs), which include a number of references to publicly available sources, and programs to monitor primary and secondary suppliers (field inspections, reconciliation and verification of data). Details on LAVs are in the sections below.

## 4.2 Justification

Since only a small proportion of feedstock is sourced from SBP-approved certification programs, TPI conducted an SBE to meet its goals of delivering SBP-Compliant products. Indicators were not modified but specific verifiers were added (See Annex 1). In developing LVAs, TPI took into consideration the results of the FSC US Draft National Risk Assessment, as well as applicable laws and regulations, US Fish and Wildlife's Endangered Species information, the Texas Forest Service Best Management Practices (BMPs), and other sources, to determine risk and/or mitigation measures.

## 4.3 Results of Risk Assessment

All criteria were evaluated and while some criteria were determined to be specified-risk, through the application and verification of mitigation measures (verified under the Supplier Verification Program), all criteria were determined to be low-risk.

## 4.4 Results of Supplier Verification Programme

Some preliminary field-testing of procurement screening was carried out in November 2018 by RFS, TPI's consultant on SBP implementation. Procedures are in the process of being fully implemented and operationalized, as fiber procurement and production resume, and NAPCO has a system in place for conducting field inspections; the roll-out of SBP-compliant procedures has slightly modified the information scrutinized and recorded through such inspections.

## 4.5 Conclusion

At this stage, TPI has completed a draft SBE that was sent out for public consultation on March 15, 2019. TPI holds a PEFC Chain of Custody certificate that includes the requirement to operate a DDS, or Due Diligence System. Through the ongoing implementation of the SBE, the monitoring of suppliers, the use of supplier declarations and with backstopping from the high level of law enforcement (and legal compliance) existing in Texas, TPI is confident that it will be able to supply SBP-compliant products to its clients.

## 5 Supply Base Evaluation Process

The Supply Base Evaluation (SBE) process for TPI was performed by Responsible Forestry Solutions (RFS), an international forestry consulting company established in 2005, as part of the contract for implementation of SBP certification for the Woodville mill undertaken with TPI.

RFS' core expertise centres on sustainable forestry, FSC/PEFC forest management certification, Chain of Custody, and the verification of the Legal Origin/Compliance of forest products. RFS has substantial experience in using forestry supply chain auditing tools to verify conformity with global best practice benchmarks such as FSC/PEFC certification, Controlled Wood and other risk-based approaches, High Conservation Value assessment, and Due Diligence Systems, and provide assurance to clients. RFS is managed by its two founding partners and Principals; Nick Moss Gillespie and Marcelo Levy, and utilizes a wide network of associates in North America and further afield. RFS' Principals are both experienced Lead Assessors (qualified with SGS) for: FSC/PEFC Forest Management certification, Chain of Custody (FSC/SFI/PEFC systems) including Controlled Wood FM/CoC, and Legality Verification (Legal Origin / Legal Compliance) of wood products, as well as ISO14001, and GHG Emissions Verification. Most recently, RFS has embarked on the implementation of a sustainable procurement system on behalf of a major US power generator, working on a project in the US southeast. RFS undertakes both desk-based and in-field assignments, providing expert feedback on risk analysis, and recommending process improvements where necessary, to help to minimize supply-chain risk.

Stakeholder consultation with relevant parties will be undertaken in March-April 2019, by RFS, on behalf of TPI.

In the United States, a National Risk Assessment (US-NRA) consistent with the current FSC Controlled Wood Standard has been carried out. In December 2018, the FSC US NRA received conditional approval from FSC International, and on January 24, 2019 a final draft was submitted to FSC International with supplementary information aimed at addressing the conditions for approval.<sup>13</sup> In this context, TPI has adopted the results of this Risk Assessment for use as a coarse filter in the screening of supply chain risk in its Supply Base.

The FSC US National Risk Assessment (NRA) covers the following categories of risk:

- ☐ Illegally harvested wood;
- ☐ Wood harvested in violation of traditional and human rights;
- ☐ Wood from forests where high conservation values are threatened by management activities;
- ☐ Wood from forests being converted to plantations or non-forest use; and
- ☐ Wood from forests in which genetically modified trees are planted.

The US-NRA makes risk designations for each of these categories. TPI applies these results to its Supply Base. It should be noted that the US-NRA provides good baseline information, yet supply chain due

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<sup>13</sup> FSC US website: <https://us.fsc.org/en-us/certification/controlled-wood/fsc-us-controlled-wood-national-risk-assessment-us-nra>

diligence is not restricted to the use of the US-NRA; other resources have been drawn upon, as deemed necessary.

## 5.1

Based on the results and outputs of the US-NRA, it was determined that TPI's Supply Base Area is low risk for the following (FSC) Controlled Wood Categories:

- ☐ Category 1- Illegally Harvested Wood: Legal Timber may come from forests on Public Lands (e.g. State Forests), or Private Lands. The US-NRA points out that the United States has comprehensive laws regulating forest management and the necessary enforcement capacity. State Forest Services have the capacity to engage private landowners and provide training resources for forest management. Texas has a Bill of Sale law<sup>14</sup> that requires every load of wood coming from the forest to be accompanied by documentation identifying its origin. Receiving mills are not allowed to accept incoming material that is not accompanied by a Bill of Sale. Hence the low-risk designation for illegal harvesting.
- ☐ Category 2 – Wood Harvested in violation of Traditional and Human Rights: The forest sector is not associated with violent armed conflict, labour rights are respected (including rights as specified in ILO fundamental Principles and Rights at work), and the rights of Indigenous and Traditional Peoples are upheld, resulting in a low risk designation for this category (US-NRA);
- ☐ Category 5 – Wood from Forests in which genetically modified trees are planted: The US-NRA reached a low-risk designation. In addition, none of the tree species used by TPI are commercially available as genetically modified organisms, so the likelihood of procuring genetically modified trees is negligible at this point.

The Specified Risk designations that affect TPI's Supply Base include:

- ☐ Category 3 - High Conservation Values:
  - ☐ Houston Toad Critical Habitat (HCV1);
  - ☐ Late Successional Bottomland Hardwood Areas (HCV3);
  - ☐ Native Longleaf Pine Systems (HCV3).
- ☐ Category 4 - Conversion to non-forest use or plantations: There are two counties in Texas that have been identified by the US-NRA process as being at risk for conversion: Liberty and Montgomery counties.

In addition to the results of the FSC US-NRA, the SBE makes use of additional data from a number of sources to further refine the identification of biodiversity and other values at the landscape level, and to facilitate the mitigation of potential impacts of fiber procurement on these. The sources scrutinized include: NatureServe datasets; CEPF Biodiversity Hotspots; The Nature Conservancy's Priority Conservation Areas; searches on the IUCN Red List of Threatened Species; and on the US Fish & Wildlife Service' Endangered Species database, including the Information for Planning and Conservation (IPaC) tool. RFS utilized IPaC to search for presence of Rare, Threatened or Endangered species and their critical habitat in each of the counties within TPI' supply base. Only two counties were found to have critical habitat for endangered species. Maps are available for known critical habitat. Wood purchased from these counties will be further inspected through the Supplier Verification Program. TPI implements procedures to ensure that all woody raw material comes from forest tracts assessed as low-risk for all categories. This means either that the

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<sup>14</sup> Texas Natural Resources Code 151.001 Effective since 2001.

woody raw material comes from counties assessed as low-risk in the SBE, or that through field verification it can be determined that a specific tract does not threaten the values identified.

## 6 Stakeholder Consultation

Once the process of Stakeholder Consultation has been completed, a full description will be provided, including a list (or lists) of stakeholders contacted, and by what means. RFS (TPI's consultant for SBP implementation) possesses both breadth and depth in stakeholder consultation, based on the experience of leading FSC Forest Management certification audits in North America and elsewhere.

### 6.1 Response to stakeholder comments

*Provide a summary of all stakeholder comments received and how the comments were taken into consideration in the SBE process.*

*Comment 1:*

*Response 1:*

*Comment 2:*

*Response 2:*

## 7 Overview of Initial Assessment of Risk

TPI is in possession of PEFC Chain of Custody certification for the Woodville mill, which is a key component in demonstrating compliance with SBP certification requirements. The company's operations are located in southeast Texas, where there is a strong regulatory framework and effective legal compliance, across the board. TPI has implemented a management system that builds on global best practice in terms of forest product supply chain due diligence, starting from PEFC requirements, but including elements of other certification systems, such as the FSC Controlled Wood standards, and the National Risk Assessment process currently being completed worldwide. All of the company's procurement of wood fiber is outsourced to NAPCO, an entity with very extensive experience of working with both TIMOs and other corporate landowners, as well as Non-Industrial Private Forestland owners throughout the region. There is some fiber available that originates in operations certified to international third-party voluntary standards, such as SFI Forest Management standards, or the American Tree Farm System. TPI has furthermore contracted with Responsible Forestry Solutions, a consulting company with extensive experience in the use of High Conservation Value (HCV) assessment to evaluate the potential risk of impacts of fiber procurement on HCVs present in the fiber basket of the mill. Mitigation measures will be deployed as required, as detailed elsewhere in this report.

Table 1. Overview of results from the risk assessment of all Indicators (prior to SVP)

Indicator	Initial Risk Rating		
	Specified	Low	Unspecified
1.1.1		X	
1.1.2		X	
1.1.3		X	
1.2.1		X	
1.3.1		X	
1.4.1		X	
1.5.1		X	
1.6.1		X	
2.1.1	X		
2.1.2	X		
2.1.3	X		
2.2.1		X	
2.2.2		X	
2.2.3	X		
2.2.4	X		
2.2.5		X	
2.2.6		X	
2.2.7		X	
2.2.8		X	
2.2.9		X	

Indicator	Initial Risk Rating		
	Specified	Low	Unspecified
2.3.1		X	
2.3.2		X	
2.3.3		X	
2.4.1		X	
2.4.2		X	
2.4.3		X	
2.5.1		X	
2.5.2		X	
2.6.1		X	
2.7.1		X	
2.7.2		X	
2.7.3		X	
2.7.4		X	
2.7.5		X	
2.8.1		X	
2.9.1		X	
2.9.2		X	
2.10.1		X	

## 8 Supplier Verification Programme

### 8.1 Description of the Supplier Verification Programme

The Supplier Verification Program focuses on field visits to tracts within counties with a “Specified-Risk” designation. The key to the SVP is to verify that the values identified as potentially present for the specific county/ies are not affected by actual forestry operations, notably harvesting. This means that operators are aware of said values and how to identify them in the field; BMPs are implemented to mitigate any potential damage to those values; and that Health and Safety Requirements are met. TPI develops a sampling plan based on the level of risk for the counties, harvesting schedule, upcoming contracts with landowners and/or suppliers, and tracts where wood was purchased in the past.

Suppliers must provide information regarding:

- ☐ Workers qualifications, licenses and certificates as required;
- ☐ Records of accidents/incidents;
- ☐ Appropriate insurance coverage;
- ☐ Health & Safety training records.

Using the Field Inspection Form, the field visit must verify and record the following:

- ☐ There is evidence of legal ownership of the forest tract (Bill of Sale, contract, or equivalent);
- ☐ Type of harvesting carried out (thinning, clearcut);
- ☐ Any values observed;
- ☐ Classification of streams and other water bodies;
- ☐ BMPs are used (e.g. SMZs meet width requirements with good retention, skid trails are properly located, stream crossings are minimized, no evidence of spills, etc.);
- ☐ Health and Safety requirements are met in active operations (required Personal Protective Equipment, spill kits, First Aid kits, fire extinguishers, appropriate communication devices, etc.);
- ☐ Values identified for the particular tract are not threatened (i.e. Threatened or Endangered Species or other HCVs identified);
- ☐ The forest tract is to be maintained as a forest tract and not converted to non-forest use;
- ☐ When natural Longleaf Pine stands are harvested, these operations are part of thinning and/or stand improvement practices.

### 8.2 Site visits

*Field assessment of indicators will be described in more detail as instances requiring this are detected, going forward.*

### 8.3 Conclusions from the Supplier Verification Programme

*Conclusions from the SVP will be summarized in future iterations of this report.*

## 9 Mitigation Measures

### 9.1 Mitigation measures

Five indicators were identified that had specified risk, requiring mitigation measures. These measures are laid out below. Their implementation resulted in arrival at a 'low-risk' designation for all four indicators.

**Indicator 2.1.1: The Biomass Producer has implemented appropriate control systems and procedures for verifying that forests and other areas with high conservation values are identified and mapped.**

**Mitigation measure:** In order to lower the risk, the Supplier Verification Program will be used to verify that values identified as potentially present are not harmed by forest operations, that logging crews have the proper training (Pro-Logger certified in Texas), and that BMPs are implemented.

**Indicator 2.1.2: The Biomass Producer has implemented appropriate control systems and procedures to identify and address potential threats to forests and other areas with high conservation values from forest management activities.**

**Mitigation measure:** NAPCO as TPI's sole supplier, sources primary material based either on the purchase of timber on the stump (with harvesting managed and/or contracted by NAPCO), or the purchase of volume offered for purchase as part of the off-take of a harvesting operation managed by another entity. In this scenario, there are no difficulties in identifying the tract of origin and conducting a verification audit under the Supplier Verification Program. TPI evaluates suppliers and keep records of their performance. For secondary suppliers knowing the tract of origin is more complicated and TPI implements its PEFC Chain of Custody Procedures and associated DDS purchasing from suppliers certified under an SBP-approved certification system.

**Indicator 2.1.3: The Biomass Producer has implemented appropriate control systems and procedures for verifying that feedstock is not sourced from forests converted to production plantation forest or non-forest lands after January 2008.**

**Mitigation Measures:** TPI's Procurement Procedures require that primary suppliers provide a Bill of Sale that allows the identification of the forest tract for inspection purposes. Also, NAPCO sources primary material based either on the purchase of timber on the stump (with harvesting managed and/or contracted by NAPCO), or the purchase of volume offered for purchase as part of the off-take of a harvesting operation managed by another entity. In either scenario, the fiber consists of small-diameter and/or low-quality product, whether roundwood or residual material. Field inspections are carried out as part of a Supplier Verification Program, used in Specified Risk counties to re-categorize suppliers' risk profile, where possible, through mitigation measures. Most of major secondary suppliers are SFI/PEFC certified with an associated

DDS. Desk audits of non-certified secondary suppliers will be carried out to sample county of origin, contracts with landowners, credentials of logging crews, etc.

**Indicator 2.2.3: The Biomass Producer has implemented appropriate control systems and procedures to ensure that key ecosystems and habitats are conserved or set aside in their natural state (CPET S8b).**

**Mitigation measure:** All Primary Suppliers are subject to a desk audit where values of concern can be identified in relation to the specific tract using the US Fish and Wildlife Service's IPaC tool or by checking the Texas Forest Service website identifying habitats of concern for the Federal T&E species list.

TPI requires suppliers to comply with laws and regulations, to use trained logging crews and implement BMPs. In addition, TPI verifies and evaluates suppliers through field inspections.

**Indicator 2.2.4: The Biomass Producer has implemented appropriate control systems and procedures to ensure that biodiversity is protected (CPET S5b).**

**Mitigation measure:** All Primary Suppliers are subject to a desk audit where values of concern can be identified in relation to the specific tract using the US Fish and Wildlife Service's IPaC tool, or by checking the Texas Forest Service website identifying habitats of concern for the Federal T&E species list.

TPI requires suppliers to comply with laws and regulations, to use trained logging crews and implement BMPs. In addition, TPI verifies and evaluates suppliers through field inspections.

## 9.2 Monitoring and outcomes

Information on the monitoring of the above-named indicators, and the results of that monitoring, will be reported in future iterations of this report.

# 10 Detailed Findings for Indicators

Detailed findings for each Indicator are provided in Annex 1.

# 11 Review of Report

## 11.1 Peer review

*If an external peer review of the final version of this report is performed, the process that was followed will be described, and the competency of the parties involved will be outlined as well.*

## 11.2 Public or additional reviews

*If another type of external review is performed prior to finalisation of this report (e.g. publication for comments by stakeholders, NGOs, or other independent third parties), the process will be described here.*

## 12 Approval of Report

Approval of Supply Base Report by senior management			
Report Prepared by:	<i>Responsible Forestry Solutions</i>	<i>Toronto-based Consultancy</i>	<i>March 15<sup>th</sup>, 2019</i>
	Name	Title	Date
The undersigned persons confirm that I/we are members of the organisation's senior management and do hereby affirm that the contents of this evaluation report were duly acknowledged by senior management as being accurate prior to approval and finalisation of the report.			
Report approved by:	 <i>Corey Gallagher</i>	<i>Bankruptcy Consultant/ Authorized Signer</i>	<i>3/29/19</i>
	Name	Title	Date
Report approved by:			
	Name	Title	Date
Report approved by:			
	Name	Title	Date

## 13 Updates<sup>15</sup>

Note: Updates should be provided in the form of additional pages, either published separately or added to the original public summary report.

### 13.1 Significant changes in the Supply Base

*Provide a description of any significant changes to the supply base.*

### 13.2 Effectiveness of previous mitigation measures

*For each mitigation measure identified during the evaluation, give a detailed account of whether the measures were shown to be effective or not.*

### 13.3 New risk ratings and mitigation measures

*Provide an update of risk ratings for all relevant Indicators.*

### 13.4 Actual figures for feedstock over the previous 12 months

*Using the categories in Section 2.5 'Quantification of the Supply Base' (above), give an update on the actual figures for the previous 12-month period. Volume may be shown in a banding between XXX,000 to YYY,000 tonnes or m<sup>3</sup> if a compelling justification is provided\**

### 13.5 Projected figures for feedstock over the next 12 months

Bands are:

1. 0 – 200,000 tonnes or m<sup>3</sup>
2. 200,000 – 400,000 tonnes or m<sup>3</sup>
3. 400,000 – 600,000 tonnes or m<sup>3</sup>
4. 600,000 – 800,000 tonnes or m<sup>3</sup>
5. 800,000 – 1,000,000 tonnes or m<sup>3</sup>
6. >1,000, 000 tonnes or m<sup>3</sup>

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<sup>15</sup> This section is not applicable at this time, i.e. prior to the Main (Initial) Certification audit.

## 14 Appendix – TPI County List

Anderson	Fort Bend	Jackson	Montgomery	Shelby
Angelina	Freestone	Jefferson	Nacogdoches	Smith
Austin	Galveston	Lee	Navarro	Tyler
Brazoria	Gregg	Leon	Newton	Upshur
Brazos	Grimes	Liberty	Orange	Van Zandt
Burleson	Hardin	Limestone	Panola	Walker
Chambers	Harris	Madison	Polk	Waller
Colorado	Harrison	Marion	Robertson	Washington
Falls	Henderson	Matagorda	Rusk	Wharton
Fayette	Houston	Milam	Sabine	Wood