



Institute for Sustainable Forestry

P.O. Box 1580, Redway, CA 95560

phone: 707 923-7004

email: contact@newforestry.org

Limited Appraisal and Valuation of Scotia Pacific (SCOPAC) Timberland and Timber in Northern California

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Introduction

The following report is a written valuation of the harvestable timber and the harvestable timberland on ~204,000 acres of Scotia Pacific (SCOPAC) lands in Northern California prepared by BBW Associates. Our appraisal and valuation is based on publicly available information contained in Pacific Lumber Company's (PALCO) Sustained Yield Plan (SYP), Final EIS on the Habitat Conservation Plan (HCP) and information from SCOPAC's 10K filings with the SEC. In addition, we have reviewed public information, public documents, and sales transactions from recently traded timberlands in Northern California. We have also interviewed several foresters from the local area, including a former PALCO forester as well as the chief forester for a large redwood company in the local area.

1. Standing Timber on SCOPAC Timberlands

The SYP states that there was an estimated 5,004,554 MBF of timber on the property in 1998. A subsequent inventory in 2002 found that the volume of timber cruised in 2002 was virtually exactly the same as claimed in 1986 when the 1986 figures were adjusted for growth and harvest. However, the 10K states that virtually no old growth timber was left on the property and that said volume of old growth has been replaced by second growth timber. The 10/27/05 8K Notes to Investors states that the property had 4.1 BBF of conifer timber, presumably at the start of 2005 and "...with over 1.1 BBF of that inventory located in the Humboldt Bay watershed area (which area includes the Freshwater Creek and Elk River watersheds). SCOPAC's 4.1 BBF of conifer inventory consists of approximately 66% redwood, 30% Douglas fir, and 4% of other whitewood conifers."

2. Establishment of Capable and Available Timberland Base

Information from the 8K Notes to Investors from 10/27/05 provides additional information, which shows that 55% of the property (112,200 acres) is unrestricted due to regulatory constraints, 29% (59,160 acres) is partially restricted and 16% (32,640 acres) is not harvestable. Thus, SCOPAC's 8K filing indicates that about 171,360 acres are manageable).

After deductions for non-commercial lands, WLPZs (Class 1 & some Class 2), wide roads, extreme surface erosion hazard lands, and very high and extreme landslide hazard lands, we estimate there are **151,617** acres of capable timberland that is available to manage on the SCOPAC property.

TABLE 5 SCOPAC CAPABLE AND AVAILABLE TIMBERLAND BASE								
	As stated, Pg 16, Table 5, 1997 SYP	As stated in 12/04 10K	Non Commercial	WLPZ	Wide Roads	Extreme Surface Ero.	EX & VH Lndsls Haz	Loggable Acreage
Site 1	4,335	4,177	74	572	39	38	197	3,256
Site 2	191,536	184,565	3,284	25,287	1,745	1,673	8,695	143,881
Site 3	5,964	5,747	102	787	54	52	271	4,480
Site 8	1,141	1,099	20	151	10	10	52	
Site 9	8,729	8,411	150	1,152	80	76	396	
Total	211,705	204,000	3,630	27,950	1,928	1,849	9,611	151,617
% of total		100.00%	1.8%	13.7%	0.9%	0.9%	4.7%	74.3%

3. Valuation Of Price Of Timberland From Comparable Land Sales

Turnover of redwood timberland has been brisk within the last couple of decades. The properties discussed below are considered to be somewhat comparable to the SCOPAC property. A brief explanation is provided for variations in value. Pertinent data is summarized in Table 6 below. Based on the above analysis of comparable timberland sales, we believe that the SCOPAC timberlands have per acre value of \$2,500/acre for site I timberland, \$2,200/acre for site II lands, and \$1,250/acre for site III land. In addition, we believe that the site 8 and 9 lands have bare land values of \$100/acre and \$50/acre. Thus, we establish the value of the property in Table 7 below as ~\$424,200,000

TABLE 6 COMPARABLE LAND AND TIMBER TRANSACTIONS				
Property	Acreage	Purchase Price	Value/Acre	Percent Site II
Coastal Forestlands	23,780	\$18,000,000	\$756	90%
Sierra Pacific Co.	171	\$1,750,000	\$10,234	n/a
Barnum Lacks Ck.	4,000	\$5,000,000	\$1,250	20%
Simonson Mill Ck.	25,000	\$60,000,000	\$2,400	95%
Luccehesi	20	\$1,100,000	\$54,187	n/a
Headwaters	5,711	\$350,000,000	\$61,285	n/a
Barnum Jacoby Ck.	285.7	\$1,800,000	\$6,300	90%
Elk River Timber	9,458	\$78,400,000	\$2,150	90%
Georgia Pacific	194,000	\$397,000,000	\$2,046	70%

TABLE 7 VALUATION OF SCOPAC BASED ON VALUE OF TIMBERLAND				
	ACRES IN SYP	ACRES IN 10K	VALUE/ACRE	VALUE
Site 1	4,335	4,177	\$2,500	\$10,442,500
Site 2	191,536	184,565	\$2,200	\$406,043,000
Site 3	5,964	5,747	\$1,250	\$7,183,750
Site 8	1,141	1,099	\$100	\$109,900
Site 9	8,729	8,411	\$50	\$420,550
Total	211,705	204,000		\$0
% of total		100.00%	100.00%	\$424,199,700

4. Value of Property Based on Discounted Annual Timber Harvest on SCOPAC Lands

The valuation of the annual timber harvest on SCOPAC lands is based on:

1. The harvest acreage discussion above, which shows that loggable acreage is either 74% of total acreage, e.g. 151,000 acres, or 112,000 acres unrestricted and 59,000 acres partially restricted, for a total loggable acreage of 171,360 acres, based on the 8K filing from 10/27/05,
2. The average harvest volume over the past 6 years was 150 MMBF,
3. Harvest over the past two years has averaged about 140 MMBF/year
4. The CEO Op-ed piece in the SF Chronicle from January 2005 where Mr. Mann stated that due to the water board problems harvest is 73% of projected or 130 MMBF.
5. SCOPAC projects 100 MMBF/year of harvest between 2006 - 2016 (10/27/06 8K filing).

TABLE 9 SCOPAC HARVEST 1998-2005 FROM 8K NOTES TO INVESTORS, 10/27/05			
Year	MBF	MBFE	Ratio of MBF/MBFE
1998	76,583	55,051	1.39
1999	100,310	69,138	1.45
2000	153,368	109,433	1.40
2001	167,867	117,256	1.43
2002	178,557	124,759	1.43
2003	166,276	117,195	1.42
2004	144,089	96,093	1.50
2005 ^{1/}	139,628	97,500	1.43

^{1/} 2005 MBF estimated from average ratio of MBF to MBFE applied to reported 2005 MBFE volume from the 2005 10K filing of 3/14/06.

In addition to the information obtained above from CDF, BBW obtained GIS information from the CDF web site on all harvest plans filed by SCOPAC/PALCO in Northern California between 1999 and

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December 31, 2004. That data shows that between 1999 and the end of 2004, PALCO filed THP's covering 56,272 acres. Within those 56,272 acres, PALCO proposed 23,139 acres of clearcuts (41%), 7,694 acres of commercial thinnings (13%), 5,144 acres of selection (9%) and 12,155 acres of no harvest areas (21%). The remaining harvest (16%) consists of seed tree removal cuts, shelterwoods, etc. which are likely the prescriptions being applied within harvestable watercourse zones. The no harvest areas include such things as openings, prairies, excluded areas such as rock pits, landslides, non-harvestable watercourse zones, and probably the biggest single exclusion – areas within THPs that are too young to harvest. More recent data from the 8K notes filed on 10/27/05 shows a substantial increase in helicopter and a substantial decrease in tractor acreage as Table 10 below shows:

TABLE 10 SCOPAC HARVEST METHOD FROM 10/27/05 8K NOTES			
Year	Tractor	Cable	Helicopter
1998	39%	55%	7%
1999	28%	35%	37%
2000	30%	30%	40%
2001	36%	31%	33%
2002	34%	43%	24%
2003	30%	43%	27%
2004	24%	46%	30%
Average	32%	40%	28%

Besides harvest volume an additional factor to consider is harvest intensity. The recently retired executive director for the water board staff indicated in a letter to the North Coast Journal on 3/24/05 that Hawthorne's allowable cut is about 80 MMBF/year on an estimated 180,000 acres, while Simpson's harvest rate is about 200 MMBF/year on 450,000 acres. Our own estimates for the harvest rate on Mendocino Redwood Company (MRC) property are consistent with the rate estimated in the North Coast Journal at 162 bd. ft./acre/year (40 MMBF/year on 236,000 acres). PALCO's draft SYP projected a harvest rate of 1,078 bd. ft./acre/year on the entire property while the apparently approved rate is estimated at 860 bd. ft./acre/year. Lacking any better data than described above, we use an unrestricted harvest rate of ~121 MMBF/year based on the SYP's stated harvest intensity rate of 1,078 bd. ft./acre/year and a rate of 15.9 MMBF/year from the restricted acreage based on a rate that is 25% of the intensive rate (see Table 11 below).

TABLE 11 SCOPAC ASSUMED HARVEST RATE				
	Percent of landbase	Acres	Harvest Intensity. bf/ac/yr	Harvest rate MMBF/yr
Unrestricted	55%	112,200	1,078	120.9
Part restrict	29%	59,160	270	15.9
No harvest	16%	32,640	0	0
Total	100%	204,000	671	136.9

For simplicity sake, we lower the harvest rate to 135 MMBF/year and project that this rate would be in effect for the next 3 years (3 years is chosen in order to be "in-sync" with the 'periods' used in the SYP). In the 10/27/05 Notes to Investors, SCOPAC projects an average harvest of 100 MMBF between 2006 and 2016. However, we think the 100 MMBF for the next several years is too low while we think the

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ramping down projected in the SYP is probably proportionally a good estimate. Thus, consistent with the SYP we drop the cut over time reflecting the lack of old growth, the extensive harvest required now, and the goals of the SYP. Beginning in 2009, the SYP projected a drop in harvest from 178 MMBF/year to 157 MMBF/year for the 10-year period from 2009 to 2018. In 2019, the SYP projected a further drop in the projected harvest schedule to 116.8 MMBF for the period of 2019-2035. As a result of these projections, we drop the actual harvest of 135 MMBF today to 119.5 MMBF in 2009, and then drop the harvest further in 2019 to 88.7 MMBF. Averaged over the next 30 years, the total harvest based on these results averages ~ 103 MMBF/year. In addition, an annual harvest of 103 MMBF represents a harvest rate of about 504 bf/ac/yr, which is within the range of annual harvest rates of the other major companies on the Northcoast.

Based on the assumptions above, we believe the value of the annual harvest, without price appreciation over the next 30 years is ~ \$537,478,000 when discounted at 7%, ~ \$469,286,000 when discounted at 9% and ~ \$416,822,000 when discounted at 11%. If prices are assumed to rise at reported price appreciation trends (however see Analysis of Intangible Factors below) then the discounted value of the timber harvest over the next 30 years is as shown below:

TABLE 13			
DISCOUNTED REVENUE PROJECTIONS FOR SCOPAC TIMBER HARVEST FOR NEXT 30 YEARS (2006-2036)			
Type of Appreciation	7% Discount Value	9% Discount Value	11% Discount Value
No price appreciation	\$537,478,000	\$469,286,000	\$416,822,000
1%/yr. Real price appreciation	\$646,767,000	\$552,035,000	\$481,822,000

Due to the RISKS integral to managing the SCOPAC property associated with past over harvesting, the water board issue, and the continuing scrutiny of PALCO/SCOPAC timber harvest, we believe a reasonable discount rate for the property is 11% and that the property could potentially generate ~ \$481,822,000 of discounted net revenue assuming 1%/year real price appreciation BEFORE any taxes on profits.

5. Valuation of SCOPAC if managed under “long rotation” sustainable, uneven-aged management

The prospect of managing the SCOPAC lands for long rotation, sustainable, uneven-aged management is of considerable interest to many members of the local community. We provide the following estimate of the revenue stream that might be generated by long rotation, sustainable, uneven-aged management. The proposed sustainable long rotation uneven-aged management would entail:

- Preparation of an SYP which significantly reduces expenses of THP preparation
- Management costs of personnel (but not consultants) of ~\$5.25 million per year based on 85 employees and 50% overhead.
- Consultant costs of \$3.7 million per year for THP preparation
- no timber harvest in the WLPZ of any class I watercourse
- no harvest on extreme or VH landslide hazard lands
- no harvest on extreme or VH surface erosion hazard lands
- no harvest in the WLPZ of any mapped class II watercourse
- Limited harvest down to 80% of crown cover in unmapped class II watercourses
- Total no harvest acreage of ~53,000 acres

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- Single tree selection on a harvestable acreage of 151,600 acres managed with “long rotations”.
- Generally today’s younger stands (ages 20-40) are harvested once every 10 years until they reach age 50, then these stands are harvested once every 15 years. All stands age 50 and greater are harvested by removing 75% of the growth that has occurred over the past 15 years.
- The 12% late seral condition today improves to 54% of the property in 30 years and 100% of the property in 60 years.
- Logging systems distribution the same as today (e.g. 32% cat, 40% cable, 28% helicopter)
- Increased logging costs equal to ~\$308/MBF for selection logging compared to \$230/MBF for the suite of systems currently in effect.
- Average of last five years BOE stumpage prices for redwood (\$684) and Douglas-fir (\$415)
- Logging on average requires harvest on about 10,200 acres per year, compared to 6,600 acres per year today.
- The 1,500+ mile road system will need to be maintained in a truckable condition at all times since harvest is expected to occur across all 151,000 acres once every 15 years.
- Road maintenance costs remain the same as today at \$10.4 million per year.

Based on these assumptions, the SCOPAC property would generate the following discounted cash flows after 30 years of operation at the various discount rates price appreciation rates noted below:

TABLE 14 SCOPAC 30 YEAR DISCOUNTED CASH FLOW OF UNEVEN-AGE LONG ROTATION MANAGEMENT USING CURRENT SUITE OF LOGGING METHODS		
Discount Rate	Type of Appreciation	Discounted Value
4%	no price appreciation	\$337,010,000
	1% price appreciation	\$503,560,000
7%	no price appreciation	\$233,000,000
	1% price appreciation	\$331,360,000
9%	no price appreciation	\$159,060,000
	1% price appreciation	\$212,650,000

Summary of Valuation of Land and Timber

Based on our assumptions and analysis we believe that the 204,000 acres of SCOPAC land contains either an estimated 151,000 acres of loggable land or 171,000 acres of loggable land. Regardless of how many loggable acres are available, we value the 204,000 acre property at ~ \$424,200,000 based on the productivity of the land and comparable land sales.

An alternative approach to valuing the property is to estimate the discounted value of the revenue stream generated by the harvest over time. We estimate, given the risk and other factors involved in the management of the SCOPAC lands, that the discounted value of the annual harvest from the property is best valued using an 11% discount rate, which produces a corresponding harvest value of ~ \$481,822,000 BEFORE taxes on profit. We use an 11% discount rate because of the lack of data, purported depletion of the property between 1980 and 2000, management approach to regulatory matters, and the general risk associated with owning a high visibility property.

If the property were managed on a long rotation uneven-aged basis as a “community forest”, the property could potentially generate \$331,360,000 of discounted cash flow from timber harvest over the first 30 years of operation using a 7% interest rate and with 1%/year price appreciation.