

**Oregon Woodland Cooperative\***  
**Business Plan**  
**2007**

**\* registered as the Oregon Woodland Management and Sales Cooperative**

**Compiled with the assistance of the  
Northwest Cooperative Development Center**

**Business Name:**  
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*(known as Oregon Woodland Cooperative)*

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## I. Executive Summary

***The Oregon Woodland Cooperative (OWC) is poised to build on its solid historical base, increase its economic vitality and ensure sustainable stewardship for current and future members. An in-depth review of past activities, correcting weaknesses, and implementation of new opportunities identified in this business plan will bring this vision to reality.***

The Oregon Woodland Cooperative was established in 1981 by a group of woodland owners who sought to provide professional forestry management services for members, and achieve collective benefits from marketing their timber. Over the years the membership has slowly grown to its present size of 44 members with 9,615 acres. While inventory data is not available on all acres, it is likely there is about 50 million board feet of timber on the properties, with many acres of young stands soon to provide additional volume. The OWC has focused on marketing commodity timber, poles, and export timber in the past. However, the OWC is facing new challenges – aging membership, declining member participation, market weakness, lack of product diversity, and inadequate revenue to support OWC activities and administration. Clearly, changes are needed.

The OWC Business Plan is an aggressive, innovative, and optimistic plan for the future. The plan will enable the OWC to:

- ***re-vitalize and invigorate*** the OWC's members by creating a new vision; one that provides improved and new services, and encourages intergenerational succession. A Clearinghouse will serve as the “communication center” for the OWC, a place where members can get OWC information and response.
- ***grow its membership*** by becoming the kind of organization woodland owners will seek to join. Encouraging new members by demonstrating tangible rewards is key to the OWC's future. Increased membership will also increase OWC's effectiveness and efficiency
- ***create greater economic returns and opportunities*** through product diversity, aggressive marketing, and efficient OWC management. Product diversity will include not only traditional products but will expand to include value-added and non-timber products. Member returns will result from increased market leverage and by tapping into value-added processing opportunities such as use of portable mills to create niche products.
- ***provide more services to members, and improve the level of existing services.*** Innovative equipment sharing and rental, consolidated purchasing, OWC sponsored contracting of costly forestry operations, and an expanded range and depth of professional services will create efficiencies for members, expand their management abilities, and help members improve their “bottom line”
- ***operate in a business-like, efficient, and effective manner*** by being responsive to member needs, by ensuring open communication with members, cooperators, and partners outside the OWC, and by being fiscally accountable.
- ***adapt, innovate, and be far-thinking in support of member interests*** by seeking more effective, efficient, and ecologically sensitive management technology; by develop new markets and adapting to changing markets; and by create more efficient means of helping OWC members use their resources.



## II. General Cooperative Description

### A. Mission

We serve the Oregon woodland community by providing services and assistance through the power of cooperative actions of our members.

### B. Vision

We give our members professional timely service in marketing and managing their forestland working with members to find the best price for their product.

### C. Values

- *Stewardship of land* – We, as landholders, work hard to be good stewards and have a kinship to the land. It is a way of life to care for the land and grow trees that we wish to pass on to future generations.
- *Strength in numbers* - There is strength in numbers and we strive to work together for the good of the whole.
- *Relationships* - We utilize the support of expertise within our membership and build ties with other associations that support forestland owners.
- *Good professional service* - We exist for the benefits of our membership. We provide the best possible customer service to the members and establish strong ties to the marketplace.
- *Trust* - Members are free to express themselves and have access to the board members to share their thoughts, ask questions and get help when needed.

### D. Who We Are

The Oregon Woodland Management and Sales Cooperative (also known as Oregon Woodland Cooperative) is a group of woodland owners formally organized into a cooperative complying with the State of Oregon statutes governing cooperatives (ORS, Chapter 62). It is a group of people working together to improve each member woodland owner's ability to manage their woodland and market their woodland products over the long term through members helping members. Members take advantage of educational opportunities, networking opportunities and the services of the Cooperative's contracted professionals to improve their ability to manage their woodlands and market their woodland products in a manner they could not do alone.

Cooperatives are businesses owned and controlled by the people who use them: the member/owners. Regardless of the industry, cooperatives share common characteristic of democratic ownership and governance. Members elect the board of directors from their own membership; the Board hires and oversees management; management is responsible for day-to-day business operations; management is accountable to the Board; and the Board is accountable to the members.

The Oregon Woodland Cooperative (OWC) is led by a Board of Directors composed of an elected President, Vice President, Secretary/Treasurer and, currently, four Directors. The Board oversees the business of the Cooperative. It welcomes input from the membership regarding current activities, policy and potential new services. A meeting of all membership is held annually.

The OWC is member-driven; helping members is the reason for its existence. Expenses are kept to a minimum in order to provide services to members at low cost; operating decisions are made by elected members, and the Cooperative seeks to expand management and marketing opportunities and advantages for members using the powers of cooperative marketing and expertise.

The OWC helps members in a variety of ways including:

**Education.**

Members of the OWC, like many woodland owners, want to do the best job they can in managing their land to meet their objectives, and to do so in an efficient and profitable manner. They usually find they need more information about management options, products they can sell, and other aspects of managing a natural resource business. They also find that information about their land; its vegetation, soils, wildlife, and other natural biologic and physical features is important in making management decisions. The OWC recognizes the need for all this information. It offers educational opportunities and partners with other organizations to meet this need.

**Services.**

Many OWC members have need for professional and technical services beyond their own knowledge. The OWC has contracted with a professional forester and has plans to contract with additional forest professionals including engineers, biologists, and others, as needed, to assist members. The contracted professionals have experience and knowledge to “fill the gap” for members, by providing services such as preparing management plans, assisting with riparian restoration, cruising timber, administering forest product sales, marketing products, and more.

Some Cooperative members are non-resident; they live a considerable distance from their property. These owners find it difficult to monitor and protect their property in a timely manner. The Cooperative provides a “woodland watch” service for non-resident’s properties in which regular visits by a qualified woodland manager are conducted and reports made back to the owner.

**Project Assistance.**

Some members may prefer to have the OWC handle their management as a contracted service, either in part or in total. In this case, the OWC, using the services of contracted professionals and knowledgeable members of the OWC, can perform the needed management activity. On a timber sale, for example, the timber will be cruised to the member’s management plan standards, the products will be designated, marketing arrangements will be negotiated (or a bid process used), contracts between the member and the purchaser arranged, and the sale administered to ensure the job is done correctly, and the owner’s interests are protected. Other management activities, such as reforestation and vegetation control, can be handled in a similar manner.

**Intergenerational Continuity.**

It takes at least two generations to grow a crop of timber and get it ready to harvest and market. With this in mind, one must always consider the next generation and their thoughts and ideas. By working closely with OWC professionals, the intergenerational bridge can be made more smoothly. This can be especially helpful if the next generation landowner is not a hands-on individual or does not live locally.

**Market Leveraging.**

Cooperatives are well positioned to concentrate on small landowner's products. By bringing together many small amounts of products from many landowner sources the competitive advantage of mass can be achieved. This use of "cooperative-concentration" can and usually does give a marketing edge and price command.

**E. Cooperative History**

During the mid to late 1970's it became evident an association to serve woodland owners with assistance in the sale of forest products as well as with guidance in the management of their forest lands would benefit many small woodland owners. Byron "Barney" Doneen investigated the possibility of organizing a forest cooperative. Barney felt that as a formal organization small private forest owners could be represented as a group and thus be able to market their forest products for maximum returns. A very important secondary goal was competent land management through the help of a trusted forest consultant under the direct supervision of a landowner Board of Directors.

In 1978 a plan was submitted to the Board of Directors of the Oregon Small Woodlands Association (OSWA) for development of a cooperative. . In 1979 OSWA sponsored a questionnaire to determine interest in forming a Cooperative among its membership. Most response came from Washington County, but interest was sparked from neighboring counties as well as throughout the state. The Directors of the Washington County chapter of Oregon Small Woodlands Association contacted several out-of-state forest cooperatives for guidance in creating By-Laws and Articles of Incorporation. The Forest Management and Sales Association, Inc., located in Chehalis, Washington, provided the pattern the new cooperative followed for formation and operation.

By February 1980, twenty-six forest landowners representing 6500 acres of timber had signed in support. On November 10, 1980, after two years of investigation, with the financial and spiritual support of OSWA, and with the support of the Oregon Association of Conservation Districts (OACD), the Oregon Woodland Sales and Management Cooperative was recognized to operate in the State of Oregon. With the issuance of a Certificate of Incorporation under the provisions of the Oregon Cooperative Corporation Act the Cooperative was officially open for business.

The original incorporating directors were Byron L. Doneen, Ron Larson, and Don South, all of Washington County, Joe Grimm of Yamhill County and Howard Hopkins of Clackamas County. The first annual meeting was held on February 17, 1981 at the Washington County Extension Office in Hillsboro during which the Board of Directors was elected. The first officers were Bryon Doneen, President; Mars Manson, Vice-president; Michael Barnes, secretary-treasurer; Joseph Grimm and Howard Hopkins, Directors. Robert Kerr provided legal assistance through the formation period and the accounting firm of Coopers Lybrand assisted in organizing the bookkeeping system. Richard " Dick" Courter, professional forest consultant, was selected to provide management services for the members. By September 1981, with a change in name to Oregon Woodland Management and Sales, the fledgling cooperative became a functional organization with 45 forest landowners representing 7200 acres.

Today the Oregon Woodland Cooperative has 44 members with properties in ten northwest Oregon counties: Benton, Clackamas, Clatsop, Columbia, Douglas, Lincoln, Washington, Yamhill, Tillamook and Multnomah. Through the vision of its founders, it is capable of extending services to all Oregon counties. Sales strength through cooperative marketing was recognized by a pioneer group of small forest landowners most of whom were Oregon Small Woodland Association members. The Cooperative has had ninety-three product marketing and harvesting projects selling over 11.4 million board feet of logs from members' properties which sold for almost \$5.5 million. The vision of cooperative marketing still holds true and is perhaps even more critical to today's forest landowners.

## **F. Positioning for the Future**

This business plan is aimed at re-positioning the Cooperative to better serve its members by considering a broader array of services, and to recognize a broader range of potential products from member lands. The Cooperative seeks to achieve these aims in a cost effective and efficient manner, while increasing the benefits to members in terms of cash flow and improved service.

### III. Management and Organization

#### A. Organizational Form

This Cooperative is a Cooperative Corporation organized under the Cooperative Corporation Act of Oregon. Oregon Revised Statutes Chapter 62. Its purpose as set forth in its Articles of Incorporation is “to engage in any lawful activity for which cooperatives may be organized under the Oregon Cooperative Act.”

#### B. Structure

(Complete details can be found in the Articles of Incorporation and the By-Laws.)

##### **Governing Body**

The Cooperative is governed by a Board of Directors consisting of no less than five directors, each of whom must be a member of the cooperative or a representative. The officers are a chairman of the board of directors, a president, a vice president and a secretary/treasurer. The offices of the chairman of the board and the president are combined in one person. The board may appoint an assistant secretary/treasurer and specify the duties and authorities. Both the chairman/president and the vice president must be directors of the cooperative.

The board may establish an executive committee consisting of the Chairman of the board as ex-officio member and two directors elected annually to the committee. Affirmative vote of two of the three members of the committee are required for any executive committee action. The executive committee performs any of the duties of the board during the interim between board meetings, with some exceptions.

##### **Roles**

*Chairman/President* of the Board presides over meetings of the cooperative's members and the board, and performs such other duties as may be required by the board. As President, this person is the executive head of the cooperative under the direction and control of the board, signs as President on behalf of the cooperative all documents which he is authorized by the board to sign, and has general charge, under the board's control and direction, of the operations of the cooperative. The President remains on the Board of Directors, as an advisor, for one year after term in office expires.

*Vice-President* performs the duties of the chairman of the board and president during the absence, disability or disqualification of that officer.

*Secretary/Treasurer* records and maintains accurate and appropriate minutes and other records of all meetings of members of the cooperative and of the board, and has general charge and supervision of the books and records of the cooperative. Some duties include maintenance of membership records, filing of tax returns, ensuring the integrity and adequacy of all corporate accounting records, and preparing appropriate financial reports of the cooperative.

### **C. Oversight**

The Board of Directors, as duly elected representatives of the membership, is responsible for oversight of all cooperative activities and affairs. The Board redeems its oversight responsibility by:

- establishing appropriate management policies, standards and criteria for Cooperative activity;
- assigning Cooperative assets needed to meet Cooperative goals;
- monitoring the level and quality of Cooperative activity;
- ensuring appropriate documents required to meet legal obligations are prepared and filed;
- reporting periodically (but no less than annually) on the status of the Cooperative (legal, financial, and organizational health), and the achievement of Cooperative goals and objectives to the membership.

### **D. Management Policies**

The cooperative's business with, or for, its members is conducted on a cooperative service-at-cost basis for the mutual benefit of those members.

All net earnings of the cooperative derived during any fiscal year from business done with or for its members is accounted for, and apportioned on a patronage basis among the member patrons involved, and paid as provided for in the Bylaws.

The cooperative may serve nonmembers, but cannot exceed what is provided to the membership.

#### **Standards.**

- a. Products handled or marketed by the cooperative for patrons must comply with forestry industry standards. Scaling and grading is done by an independent scaling bureau acceptable to the cooperative, the patron and the buyer, and in accordance with applicable law.
- b. All products handled and marketed by the cooperative or according to its order are delivered when, where and in proper merchantable condition as the board or the cooperative's officer or employee designated by the board for the purpose may prescribe. Any products received by the cooperative which the cooperative finds do not comply with the applicable forestry industry standards and laws and regulations in effect in the area or in the market served by the cooperative, may be rejected by the cooperative as unsuitable for marketing, or by mutual agreement may be handled specially by the cooperative at the patron's risk and expense.

#### **Service Fees.**

The board may fix fees payable to the cooperative by each member for services performed by the cooperative for that member. Such fees may vary according to the type and volume of service involved.

### **E. Recordkeeping**

The OWC maintains all records necessary to conduct and report on business activities, including those necessary to comply with applicable federal, state, and local laws and

regulation, and to demonstrate to OWC membership that their interests are being protected and enhanced.

Records are kept in two forms

- paper records in secure and fire proof file storage receptacles
- electronic file formats (CD/DVD) that are re-mastered every five (5) years

When an OWC office is acquired, file records will be housed there. In the interim, the records will be stored at a location determined by the Board of Directors.

OWC records for individual members will be guarded from disclosure to unauthorized persons or entities, both within and outside the OWC.

## **F. Membership**

Members are persons engaged in or connected with production, processing, sale or other handling of forest products within the State of Oregon who have been accepted into the Cooperative by majority vote of the Board of Directors.

### **Nature of Membership**

A series of member interviews were conducted by the Northwest Cooperative Development Center in 2006. Information gathered from those interviews identified size of member holdings, reasons for owning forest land, length of time involved with the holdings/experience with the land, and management goals as well as identifying the current member perception of the cooperative in terms of effectiveness and benefit as well as opportunities for change and desired change.

Based on the responses available, the OWC is diverse in terms of

- ownership size which varied from 10 acres to 1000 acres,
- reasons for owning forestland which varied from inherited from a relative to a preferred life style to an investment,
- length of time involved with woodlands which varied from less than five years to over 50 years,
- management goals which varied from intense management for financial return to minimal management for enjoyment of woodsy environment.

This diversity of ownership, size of holdings, and potential for change of ownership, presents a challenge in planning and developing strategies that ensures inclusion of all interests to some degree.

### **Member Perceptions of Effectiveness and Benefit**

Members attribute little to no benefit to being a member of the OWC. However, comments also suggest that there is a strong optimism regarding what the OWC could accomplish with proper direction and structure. Services related to forest management and product marketing are the source of considerable benefit. Frustrations exist, particularly, in regard to a lack of a mission and business plan, limited marketing and service opportunities, stagnant leadership and membership, and limited communication. As noted by responding members, the OWC is composed of “good people” yet lacking energy.

Comments also suggest that there is a strong optimism regarding what the OWC could accomplish with the proper direction and structure. Towards this end, they believed the following immediate and long term issues should be considered.

***Immediate Focus***

- Development of a mission statement and business plan
- Increase transparency of cooperative business
- Improved documentation
- Improved communication regarding leadership and council
- Increased communication among members (through meetings, notification of program opportunities, government and tax considerations, generational planning)
- Creation of an information database (contacts for services, foresters, extension agents, government bodies, loggers, management, legal, insurance, etc.)
- Newsletter
- Meetings (attempts to provide member driven interest subjects i.e. speakers or targeted information)
- Increased Membership

***Long term Considerations***

- Review of feasibility of developing shared service programs or acquiring shared equipment. However, this change will be difficult given the diversity of members as noted previously. Nonetheless, opportunities may exist and should be considered.
- Service examples could include: forest management plan review, woodland management activities, spray services, fertilization services, trimming, harvest, cruise and virtual sort yard, etc.)
- Equipment examples could include: portable sawmill, sort yard, log storage, NTFP storage, etc.

## IV. Industry Overview and Marketing plan

### Introduction

The products Oregon Woodland Cooperative members traditionally produced have included domestic lumber, pulp, chips, export lumber, veneer logs, poles, etc.

The OWC is re-positioning itself to better serve its members by recognizing a broader range of potential products from member lands. The OWC seeks to achieve these aims in a cost effective and efficient manner, while increasing the benefits to members in terms of cash flow and improved service.

### A. Macro-Overview of the Forest Products Industry

#### *Introduction*

The forest products industry is dynamic, with recent trends heavily influenced by increasing globalization. A considerable amount of consolidation has recently occurred in the industry. Additionally, there has been a shift in forest ownership, with many companies selling off forest land and new ownership groups such as timber investment management organizations (TIMOs) buying up large amounts of forest land. The long term impact of this shift in ownership is not well understood.

#### *Global supply*

Global forest area is estimated to be approximately 4 billion hectares (ha), representing about 30% of total land area. This forest area is not distributed evenly, with the 10 most forest-rich countries having approximately 2/3 of the total forest area. The 10 most forest-rich countries are: Russia, Brazil, Canada, US, China, Australia, Democratic Republic of the Congo, Indonesia, Peru, and India.

During 2000-2005, global forest area decreased at an annual rate of 7.3 million ha, down from the decrease of 8.9 million ha from 1990-2000. South America and Africa had the largest losses of forests. Net loss in North America and Central America was 350,000 ha per year. Forestland in Europe and Asia expanded, Asia gaining approximately 1 million ha per year from 2000-2005. Forest plantations account for an estimated 4% of the total forest area, however they account for approximately 40% of global roundwood supply. Plantation forestry has grown dramatically in the last 30 years from 18 million ha in 1980, to more than 200 million ha today. Asia and countries in the hemisphere are the predominate areas for the establishments of new plantations, accounting for about 90% of new plantations. Plantation establishment has increased for several reasons including, government subsidy programs, price advantage over native wood fiber, and technological advancements to address less desirable characteristics of fast-grown plantation fiber. The uses for plantation fiber are also increasing, with plantation wood being used not only for traditional products such as pulp and paper, dimension lumber and structural and non-structural panels, it is also being used in value-added applications such as moldings, doors, flooring, furniture and engineered wood products.

Global industrial roundwood consumption dipped 12% in 1991-92. During the remainder of the 1990's, industrial roundwood consumption increased at an annual rate of approximately 0.5%, approximately 1/3 the rate (1.4%) of consumption between 1960 and 1989. Industrial

roundwood consumption increased at an annual rate of 3% for 2003-2005, bringing consumption levels back near the record volume consumed in 1990.

The increased consumption in 2003-2005 was largely due to strong growth in several major economies such as China, the U.S. and Europe. Increasing demand of roundwood resulted in rising delivered roundwood prices. Roundwood consumption is forecast to increase through the year 2010.

Russia is the major roundwood exporter, accounting for approximately 35% of the global log export market, more than doubling exports since 1995. Forecasts show that Russia will expand its role in the global roundwood supply. Russia is the largest supplier of logs to China, the world's largest importer of logs.

While GDP growth has slowed in the more traditional markets such as the North America, Europe and Japan, many emerging markets (i.e. China, India, and Russia) have experienced high levels of GDP growth in recent years. This trend will cause the emerging markets to have more influence on the global supply and demand of forest products.

China currently has the most thriving forest products market in the world. Reduced domestic harvests to help control floods and increasing production for domestic consumption and export markets has resulted in China being the world's largest importer of wood raw materials. China has reduced imports of processed wood material (lumber, panels, etc.) and increased domestic production fueled by increased imports of raw logs. One example of China's rapid growth is with the furniture industry, where exports to the US have grown by 1000% in value since 1997. Consequently, US furniture manufacturing has declined. Many US furniture manufactures have closed US based manufacturing facilities and reopened them in China. While China has impacted almost all sectors of the industry, it has not had a large impact on the pulp and paper industry. Many forecasts show that other low-cost countries, such as India, will experience growth similar to that of China in the near future.

Global trade flows have changed in recent years, with the distance products and raw materials are shipped increasing. On a global basis, 7% of softwood logs are exported, an increase from 5% in the 1990s. The UNECE region has seen roundwood exports increase by about 20% in the past five years. During that same time period, imports have increased by about 11%.

A surplus of Douglas-fir and hemlock logs in North America has continued to fuel exports to Japan, China, and Korea, although at levels much lower than was seen in the 1970s and 1980s. Roundwood trade between the US and Canada increased by 30% in 2005, with most of the trade occurring between British Columbia and the Pacific Northwest states.

### ***Softwood lumber***

The North American softwood lumber market has been strong in recent years, particularly during 2003-2005. Forecasts show that growth in this market will slow in the near future, largely resulting from a slowing North American housing market. During this time lumber prices will soften and mills may experience break-even levels. Lumber consumption is forecast to reach record levels in 2008-2010, assuming there is not a recession in North America or globally in the next three years.

On a global scale, North and Central America are the leading producers of softwood lumber, accounting for approximately 45% of global production followed by Europe (29%), Asia (17%), South American (6%), Africa (2%), and Oceania (2%). The North and Central American and European regions are the major exporters and importers of lumber. North and Central Americans are the largest consumers of softwood lumber, consuming approximately 43% of global production.

The US is the largest producer of softwood lumber but is not a large exporter, exporting only about 4% of total production. Canada is the second largest producer of softwood lumber. It is also the largest exporter, exporting about 71% of total production, mostly to the United States. Other major producing countries are Japan, Russia, Germany, Sweden, Finland, China, Austria and Brazil.

The US is the largest consumer of softwood lumber, relying on imports for approximately 30% of the supply. Other major consuming countries are Japan, China, Germany, India, Brazil, France, Russia, UK, and Italy. However, the US consumes more softwood lumber than all of those countries combined. On a per capita basis, the top 10 consuming countries are Finland, Denmark, Canada, Austria, Bahamas, New Zealand, Norway, US, Sweden, and Latvia.

### ***Wood-based panels***

North and Central America, Asia, and Europe are the major producers and consumers of structural wood-based panels. China is the largest producer of softwood plywood, producing 32% of global production. However, the Chinese do not have the required grade stamp to be used in structural applications in the North American market. The USA (22%), Malaysia (7%), Indonesia (7%), and Japan (5%) are the other major producing countries. The US is the largest importer of plywood followed by Japan, China, UK and South Korea. China is the largest exporter of plywood followed by Malaysia, Indonesia, Brazil, and Russia. The US imports softwood plywood from many countries with the vast majority of imports coming from Brazil, Canada, Chile, and China.

Germany (13%), US (10%), China (9%), France (6%), and Poland (6%) are the top five producers of particleboard. China (39%), Germany (10%), and the US (9%) are the major producers of medium density fiberboard (MDF).

The European panel industry has transitioned to an export focus. In contrast, increased capacity in Russia has been used to supply the domestic market. Increased OSB capacity is expected to come on line in 2006-2008, however, a downturn in the US housing market could cause prices and profits to weaken.

### ***Value-added wood products***

Growth of value-added wood products continued in 2005. US imports of furniture reached a record level (\$16.1 billion) in 2005, accounting for more imports than the four next largest importers combined. Italy was the largest furniture exporter in 2005, but a downturn could allow China to become the largest exporter in the near future. The shift in furniture production from Europe and North America to Asia has caused 2005 production and consumption of sawn hardwood to decline in the UNECE region.

Booming residential construction markets in recent years have resulted in increased demand for cabinetry, furniture, and other value-added wood products.

Traditional, structural wood products continue losing ground to engineered wood products such as I-beams and laminated veneer lumber. The US is the major producer of engineered wood products followed by Japan, Canada, Germany and Austria. North American Glulam production reached a record in 2005. LVL and I-beam production in North America also increased in 2005.

### ***Pulp and paper***

The major factors affecting the pulp and paper markets in recent years were increasing energy prices and increasing demand in Asia. The increasing energy prices caused production costs to increase. Despite this, global demand remained strong, offsetting the increased production costs. While output decreased in the US in 2005, producers in Europe set a record for output. Both the US and Canada had production and consumption decreases in 2005, with the Canada having larger decreases than the US.

## **B. Micro-analysis: Cooperative Timber Market Options and Opportunities**

### **a. Virtual Log Sort Yard**

Log sort yards have a long history in the United States, tracing their origins back to river drives of white pine logs in the New England and Lake States. In an attempt to reduce the number of logs lost to sinking, and to improve grading accuracy, scaling and sorting, dry-land log sort yards began to emerge in the Northwest in the 1960s. More recently, sort yards have been utilized in other parts of the United States.

Despite the potential for sort yards to add value, there is also considerable risk involved in their operation. Sort yards have been unsuccessful for many reasons including poor or inexperienced management, poor design, and inappropriate equipment.

A virtual sort yard is a web-based system for accumulating log inventory information and enabling interested buyers to contact the sellers. As such, a virtual sort yard fulfills many of the objectives of a real sort yard without requiring the purchase of land and machinery, and thus, incurring the same level of financial risk.

Real sort yards often buy a variety of log grades, species, and sizes; purchase small quantities; and serve as concentration yards by accumulating volumes of log sorts that are easier to market (e.g., multi-truckload quantities vs. partial truckloads). In a market 'push' situation, the sort yard manager monitors yard inventory and searches for buyers. Conversely, in a market 'pull' situation, the sort yard manager advertises material available for sale and responds to requests. In either case, the critical piece of information is knowledge of available inventory. In large, part, a virtual sort yard can meet these same objectives.

Given knowledge of landowner inventory, the manager of the virtual sort yard can proactively seek buyers as well as respond to requests from potential buyers. More detail on the function of a virtual sort yard is discussed below.

### **Why a Virtual Sort Yard?**

Wood products entrepreneurs in Oregon state that consistent supply is the number one concern to spur investments in new capacity and/or development of new markets.

This is the case for both primary and secondary/ value-added manufacturers. Using western hardwoods as an example, many cabinet and furniture makers have said they would use more local hardwoods if the volume of supply and product quality were more reliable and consistent. Similarly, sawmills require a consistent supply of logs, as well as a means to interact with sellers, before they can acquire capital for new mills or expand existing capacity.

This is the classic ‘chicken-and- egg’ situation in the sense that landowners (supply side) wait for sawmills (and hence demand) to develop. However, sawmill owners need evidence of consistent volume of supply before investing in the processing infrastructure that will create the demand. A virtual sort yard is a first step to break this gridlock. A virtual sort yard would enable OWC to advertise available products for sale and thus demonstrate to the marketplace that the organization is ‘open for business’ and has the resources to supply a new or expanded enterprise. Further, establishing a virtual sort yard is a key step in the external communication and coordination functions of a clearinghouse as well as for cooperative marketing.

This concept is not limited to traditional forest products but could also be applied to nontimber forest products (NTFP). In this regard, a virtual sort yard would enable participants to pool NTFP inventories and advertise to interested buyers what is available.

### **How Would a Virtual Sort Yard Function?**

The ‘aggregated inventory’ function on the Oregon Forest Industry Directory (OFID) is intended to facilitate the creation of virtual sort yards. This function allows landowners to specify the region where their timber is located and standing timber inventory (i.e., volume potentially available) by species. The directory combines volume data for each species in each region of the state. Buyers searching for log supply by species and region can use a web-based form to contact the landowners that have entered their inventory data. Thus, as designed, the OFID aggregated inventory system is primarily focused on market pull. That is, inventory is advertised and sellers wait for buyers to contact them.

For market push, the manager of the virtual sort yard would operate in the same manner as with a real sort yard by reviewing the inventory data and proactively seeking buyers.

### **Pros and Cons**

There are some obvious pros, cons, and tradeoffs to a virtual sort yard including:

#### *Pros*

As mentioned previously, the required investment for a virtual sort yard is far less than for a real sort yard. Hence, the financial risks are much lower as well. In addition, advertising inventory ‘on-the-stump’ has the advantage of following ‘just-in-time’ inventory methods. That is, harvesting does not occur until market conditions are right and there is a buyer for the material. Risk of degrade such as stain or decay of material due to prolonged storage is eliminated. And further, the inventory continues to grow (literally!) while being held. This applies to both timber and NTFP, and NTFP in particular given the highly perishable nature of some products.

Virtual sort yards also have the advantage of being able to meet precise customer specifications. For example, a log buyer can request specific mixes of species, diameters and even log/ segment lengths. In a real sort yard, the buyer is limited to inventory on hand, and in the case of log lengths, once a log is bucked, it's pretty tough to make it 'just a tad longer!'

#### *Cons*

Of course, there are trade-offs to virtual sort yards as well. By advertising inventory 'on the stump' rather than harvested and stored in a real sort yard, a virtual sort yard cannot respond as quickly to demand. On-time delivery is one of the key performance metrics in business today. Many buyers may not be willing to wait weeks or perhaps months for delivery in the event of harvest delays due to scheduling challenges with logging contractors and/or poor weather.

Similarly, there are issues related to real inventory vs. 'virtual inventory.' Buyers can visit a real sort yard and see the inventory on-hand, examine product quality (i.e., grade) and thus get a good idea of what they are purchasing.

With a virtual sort yard, there may be large gaps between volumes that landowners report as available for harvest and what actually gets harvested; further, it can be difficult to accurately assess log quality, particularly for all segments of any given stem, prior to harvest.

Lastly, a virtual sort yard will require significant managerial expertise for harvest scheduling. For example, meeting a large volume order may require harvests from several properties that may or may not be in proximity to one another. Such a situation could result in considerable increases in harvesting and transportation costs or simply lead to inability to meet demand in certain situations.

#### *Virtual Sort Yard as Part of a 'Clearinghouse' and Cooperative Marketing*

A virtual sort yard would clearly fill the role of external communication for OWC, i.e., communicating to the marketplace what OWC has to offer as well as cooperative marketing. OWC could take the additional step of developing its own website that directly linked visitors to Oregon Forest Industry Directory (OFID) for information about products available for sale. Thus, OWC would maintain its own identity and merely use OFID as a tool for one component of the clearinghouse. The website would also serve to market not only OWC products but the cooperative itself as well.

With respect to internal communication, a 'members only' section of the website could include functions to address internal communication and coordination such as discussion forums (e.g., an electronic bulletin board such as at <http://owic.oregonstate.edu/bboard>), a scheduling calendar for equipment & services, etc.

#### **Summary**

A virtual sort yard is a web-based system for aggregating and displaying timber (and NTFP) inventory data. The system allows interested buyers to search the inventory and contact sellers. A virtual sort yard would fulfill the external communication aspect of OWC's clearinghouse core activity as well as the goal of cooperative marketing.

As a first step, OWC will enter its inventory data into the OFID as a whole rather than by individual members; interested buyers will have a single point of contact. The inventory information will also be used by an OWC staff person to contact log buyers and provide them with information on available volumes, grades, and some assurance of long-term supply.

To more fully address the clearinghouse and cooperative marketing core activities, additional steps will be developed on a website that:

- links visitors to the inventory data as a means of external communication with potential buyers,
- includes a bulletin board to facilitate internal communication and a calendar to facilitate equipment and service scheduling.

#### **b. Markets for Low-Grade Douglas-fir Sawlogs**

Forest products markets are dynamic and complex. The dynamic nature is, of course, a result of fluctuations in end-use markets and response to competition. One aspect of market complexity is the result of log markets being linked to separate and often unrelated markets (e.g., construction lumber vs. pulp & paper). For example, for softwood logs, any given timber harvest will include both sawlogs and lower grade pulp/ utility logs.

Sawlogs are used to produce building products for which demand is based primarily on housing starts and remodeling. On the other hand, utility-grade logs, tops, and mill residues are often chipped for pulp and paper markets. Lumber and chip prices are at best disconnected, and often even counter-cyclical.

Of course, basic economics of supply and demand are at play as well. As log supplies increase, log prices go down and vice-versa. At the very least, such conditions make it very challenging to predict log and lumber prices—and even knowing the trend for one may not help forecast the trend for another. To further complicate matters, markets have shifted dramatically in recent years.

#### *Shifts in Markets*

In response to dramatic reductions in federal timber and competition, many mills today have shifted focus to high-volume production of commodity products. This shift has required retooling log processing infrastructure to use smaller diameter logs. Given the commodity nature of end products, lower grade (and hence lower price) logs are acceptable. An analogy to another industry might be, “why buy filet mignon to produce hamburger?” In other words, why buy high grade logs to produce a low-margin commodity product like dimension lumber?

And, of course, mill closures and consolidations have resulted in fewer buyers and either complete absence of markets in some areas or prohibitively long haul distances.

The end result has been a shift in the market to smaller, lower grade logs. This is not to say that markets do not exist for quality material, but simply that there are fewer buyers now than in the not-too-distant past and again, hauling distances are greater.

Prior to discussing markets for low-grade Douglas-fir, the term ‘low grade’ must be defined.

*What is ‘Low Grade?’*

The Oregon Department of Forestry’s Log Price Information website provides a good summary of the various markets for Douglas-fir. These markets include:

- 1P, 2P, 3P (peeler), and SC (special peelable cull)—logs traditionally used for producing veneer, although over time, markets for peeler logs have shifted to high-value appearance applications due to the fine texture of these logs (high number of growth rings per inch).
- SM, 2S, 3S, 4S (special mill and 2, 3, and 4 sawmill, respectively) - logs used for producing lumber.
- Utility—logs typically chipped for pulp.

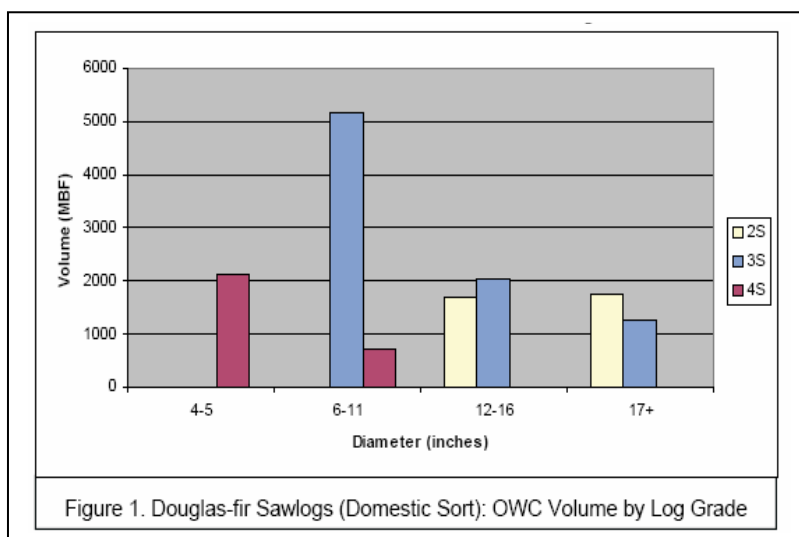
In the context of the discussion here, ‘low-grade’ refers to 3S and 4S sawlogs rather than Utility logs.

*What do the grades mean?*

It is important to distinguish the characteristics that separate higher grade from lower grade sawlogs. Log grade rules are directly connected to yield of dimension lumber. Higher grade logs are expected to result in higher yields of lumber. The principal differences between 2S and 3S logs are:

- 2S logs must be larger than (12-inch minimum vs. 6-inch, respectively) and
- Knots must be smaller in 2S logs, and
- Slope-of-grain is more restricted on 2S logs

The desired yield of lumber for 3S and 4S logs is identical and minimum diameter (6-inch vs. 5-inch respectively) is nearly identical as well. The principal differences are related to general level of defect, knot size in particular. For knots, 3 inches is the ‘magic number.’ Sawlogs with knots larger than 3 inches or knots that are not sound (decaying) are only suitable for the lowest sawlog grade: 4S. Further, the minimum net scale requirements indicate that far less defect (e.g., log sweep, decay, etc.) in general is allowed on 3S as opposed to 4S logs. In short, as with most grading systems, the lowest grade is simply the ‘catch all’ for materials that fail to meet some critical requirement of the upper grades.



***OWC Inventory***

Recent OWC inventory data reveal that members have significant volumes of 3S and 4S logs. In the domestic sort, inventory data show 8,468 MBF of 3S and 2,822 MBF

of 4S. Given that total Douglas-fir volume is 26,880 MBF, 3S and 4S comprise 42% of total Douglas-fir volume.

Figure 1 shows the volume distribution by diameter class. As can be seen, the majority of member volume is in the smaller 3S and 4S logs with 6 to 11-inch 3S logs dominating. However, when the volume of 12-inch and 17+ inch 3S logs are combined, the volume of 3S is distributed as approximately 60% 11-inch and smaller and 40% 12-inch and larger. Hence, OWC must focus on markets for both small and large diameter low- grade Douglas-fir sawlogs. Small diameter low-grade sawlogs should not be terribly challenging to market—they are currently in-demand by the larger sawmills that produce dimension lumber. Further, there may be additional interest in such logs from post and pole producers. Larger diameter logs are a different story, however.

*What Happened to Demand for ‘Big Logs?’*

As discussed in the introduction, many sawmills have retooled to process smaller diameter logs. The result has been that smaller logs are not only acceptable, but preferred. To understand this shift, one must understand the phenomena known as overrun. Put simply, overrun is the ratio of volume (MBF) of lumber recovered in excess of that predicted by the log scale to the log scale.

Hence, if a log scales at 100 board feet and 200 board feet of lumber is recovered, the overrun would be 100%. Overrun is biased with respect to log diameter due to the Scribner scaling system. Scribner underestimates log volume due to the assumed lumber recovery being outdated for current sawmilling technology. However, the bias is greater for smaller logs than for larger logs; said another way, the assumed lumber recovery is typically somewhat lower than actual recovery for large logs and considerably lower than actual recovery for small logs. Thus, a mill’s overrun will automatically increase following a switch from large logs to small logs even without improvements in processing efficiency. Thus, in the case of low-grade

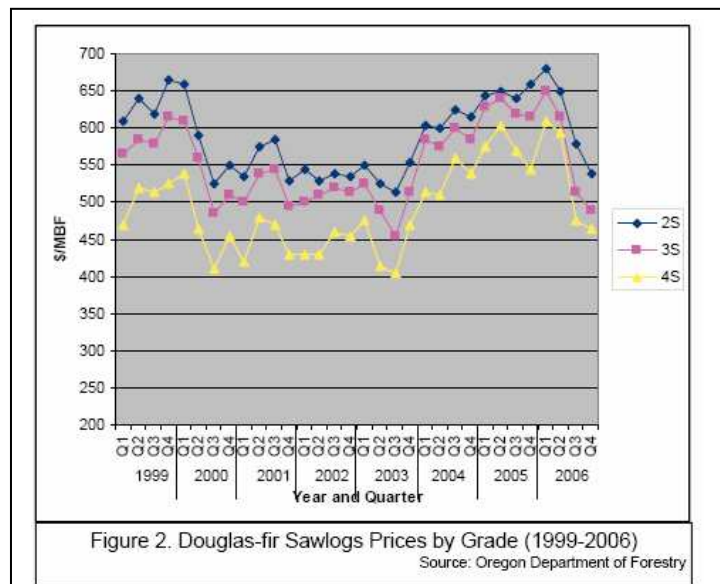


Figure 2. Douglas-fir Sawlogs Prices by Grade (1999-2006)  
Source: Oregon Department of Forestry

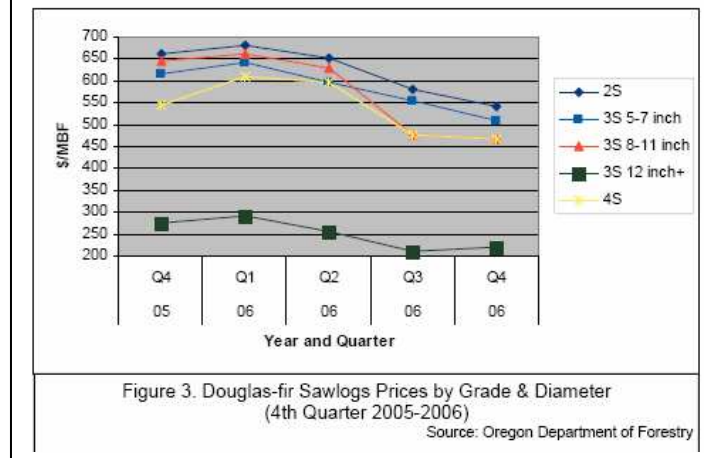


Figure 3. Douglas-fir Sawlogs Prices by Grade & Diameter (4th Quarter 2005-2006)  
Source: Oregon Department of Forestry

logs that are used to produce purely dimension lumber (not higher grade lumber), mills will prefer the logs that lead to higher overrun.

An example may help clarify:

- A 6" (small-end) diameter log, 32 feet long would have a gross scale of 50 BF Scribner. Assuming no deduction for defect, at \$490/ MBF 'pond value' (delivered to the mill) for the log, the mill would pay \$24.50 for the log. The mill would likely recover at least 100 board feet of lumber (i.e., overrun of 100%). With lumber prices at \$325/MBF, the lumber would be worth \$32.50. The mill would thus make a small profit—assuming they had no costs in sawing, drying, or transportation!
- On the other hand, a larger log, say 36" diameter, and 32 feet long, would scale at 1850 BF. Again, at \$490/ MBF, the log would cost the mill \$906.50. The mill might only get an overrun of 40% on this log or a yield of 2590 BF of lumber. Again, with lumber at \$325/MBF, the lumber would be worth \$841.75. The mill would thus lose money on this log even before considering costs in sawing, drying, and transportation.

Trends in Douglas-fir log prices in Oregon at least appear to reflect this shift in market value from large to small logs (Figures 2 and 3). Figure 2 shows a convergence in prices, that is, the difference in value between 2S and 4S has diminished in recent years. However, Figure 3 reveals the recent shift preferring smaller logs. In the 4th quarter of 2005, the Oregon Department of Forestry began reporting prices for 3S sawlogs by diameter class. Note the huge price differential between logs less than 12 inches and those over 12 inches.

A large part of this difference is related to the 12-inch minimum diameter requirement for 2S logs. Logs smaller than 12 inches that would otherwise be graded as 2S must be graded as 3S by default. On the other hand, larger logs graded as 3S must have failed to meet some critical quality criteria for 2S. In short, the quality difference between an 8" 3S and a 12" 3S could be quite substantial.

### *Large Log Markets*

In 2003, Oregon State University's Forest Business Solutions team prepared a report on markets for large diameter logs (the 'Big Log Project'). Although the report focused on logs 30 inch in diameter and larger (vs. 12 inch and larger), many of the recommendations are applicable to OWC. The Big Log Project report suggested three primary 'paths forward':

1. Consulting foresters and associations: seek advice from consulting foresters and organizations such as OSWA on land management options and marketing practices
2. PNW Woods Research Fund: create a fund for colleges of architecture in the PNW with the objective of growing the market demand for wood in non-residential applications.
3. Corporation of Forest Landowners and Potential Joint Venture with a Processor: cooperative marketing via a log sort yard and partnership with processor.

Combined, these options can be summarized as: seek information about existing markets and about managing timber for future markets; stimulate demand in

nontraditional areas; and cooperate to provide assurance of supply to a specific processor. The first and last options are particularly noteworthy for OWC.

### ***Recommendations***

The Oregon Forest Industry Directory is a tool OWC can use to better understand and tap into existing markets. An OWC staff person should contact log buyers to get a sense of what buyers are looking for. A search of the directory for the seven- county Northwest Oregon region reveals 38 buyers of Douglas-fir logs. These include, of course, firms well known to OWC members such as Stimson, Boise and RSG. However, other perhaps 'lesser-known' buyers include Mark Fritch Log Homes, Greenwood Timber, Blasen & Blasen and many more. An individual landowner with small acreage is unlikely to garner much attention from log buyers at very large firms. However, OWC should consider contacting these firms as a cohesive group of landowners and discuss the firm's interests and needs for log supply.

Perhaps more importantly, OWC should contact the small- to mid-sized firms to assess their log-buying specifications, needs for long-term supply, and interest in developing a partnership with a supplier. Reliable supply is critical for any wood products firm and hence buyers are likely to be receptive to discussions of assured supply. An OWC staff member should make these contacts. Personnel in small to mid-sized manufacturing firms are notorious for wearing 'many hats' and thus being very busy. They seek to go direct to the source rather than have the same conversation with multiple individuals or discuss needs with someone that is not in a position to address those needs.

This is certainly not to say the process of locating an interested buyer will be simple or straightforward. It is highly likely that most firms will have well established supply chains. However, there is always the potential to 'strike gold' in the sense of contacting a new firm (without well established supply) or an existing firm that has considered expansion or a new product line but has hesitated due to uncertainties about log supply.

In addition, cooperating to provide supply may require a facility to accumulate and combine volume from multiple harvest sites. Hence, OWC may need to develop a sort yard/ concentration yard.

Another value-added option OWC might offer a partner is 'pre-processing' of some kind such as debarking, slabbing (sawing a log, perhaps on a portable mill, to produce a cant), dowering (peeling a pole to a uniform diameter), etc. Small firms may see this as outsourcing and hence 'value-added' in the sense of avoiding the costs of acquiring (or allocating) space; buying, operating, and maintaining equipment; and hiring personnel to perform the initial processing. The objective for many businesses today is 'just in time' inventory—the right product, in the right quantities, at the right time. Hence, OWC could help a partner to meet this objective.

### ***Summary***

Log markets are dynamic and complex. Sawmills have consolidated and retooled in recent years and many mills now focus primarily on processing high volumes of small diameter logs for commodity lumber products. This combined with increased overrun when sawing small logs has led to log demand shifting to smaller diameter,

lower grade logs. OWC inventory data show approximately a 60:40 ratio of small (<12”) to larger (>12”) diameter No. 3 (3S) Douglas-fir sawlogs. The mix is skewed significantly more towards the smaller end when the volume of 4S sawlogs is included. These logs are currently in high demand from sawmills and hence challenges in marketing should be minimal.

Markets for larger logs will require investment of time and resources on the part of OWC staff. Buyers of Douglas-fir logs, such as are listed in the Oregon Forest Industry Directory, should be contacted to assess their interest and needs for long-term supply of the type of resource OWC members can provide. This applies to not only large and small diameter low-grade Douglas-fir logs, but all resources OWC is seeking to market.

Establishing a partnership with a buyer (or buyers) may lead to the need for additional investments such as a sort yard and/or primary processing capacity. In the end, these investments, combined with the relationships developed with buyers, should lead to long-term value for OWC members.

### **C. Overview of Non-Timber Forest Products Industry**

The term nontimber forest product (NTFP) refers to forest vegetation other than industrial timber and wood fiber products. Examples of NTFPs are floral greens such as salal and fern, edible and medicinal plants and fungi, essential oils, plant parts used for dyes, native seeds and transplants, craft materials such as beargrass and cones, saps and resins, and pine needles. The U.S. Forest Service and Bureau of Land Management use the synonym “Special Forest Products” and include small diameter posts and poles, firewood, and sometimes rocks and minerals in their definition. Internationally the terms nontimber forest product, nonwood forest product, and minor forest product are commonly used and sometimes include small animals and insects in addition to flora, fungi, lichens, and mosses.

Nontimber forest products generally refers to wild species or parts of wild species, although many NTFPs fall into a gray area between wild and cultivated. For example, some small forestland owners, particularly in the eastern U.S., practice a form of agroforestry they call wild simulation. In wild simulation, plants such as ginseng are usually grown in rows or a garden-like setup in the forest. A similar approach has been used for some products in Oregon. For example, Daral and Virginia Pearson, small forestland owners in northwest Oregon, have transplanted small ferns from forestlands into containers. They then raise these ferns under the canopy of their Douglas fir tree farm. Many NTFPs such as sword fern, Oregon grape, and huckleberry have domesticated counterparts cultivated for the nearly billion dollar a year nursery industry in Oregon.

For some of these products the quality and viability of wild and cultivated may be the same or hard to distinguish, but for others there may be a noticeable difference. Though research data is lacking, some in the NTFP industry argue that wild species are preferred and that they are more valuable than their domesticated counterparts for reasons such as quality, viability, or sometimes just personal preferences of consumers. Another reason the wild form of an NTFP species may be preferred is that it may be less expensive to procure and process than the domesticated.

Nontimber forest product harvesting in the Pacific Northwest is neither a new activity nor a disappearing relic of the pre-industrial era. Though the emphasis may have shifted from subsistence to commercial and recreational pursuits, harvesting and harvesters of wild species are still widespread throughout the region. As they most likely did in the past, harvesters learn through experience and typically practice some level of management in the areas where they harvest. Many regularly check patches of different products, experiment with productivity (for example by dispersing in forests old mushrooms which can contain millions of reproductive spores), and attempt to steward harvest areas so that there is a sustainable, increased, and better quality supply of product. Their success with these efforts has not often been measured scientifically, but it is important to recognize the positive contribution that harvesters and their harvesting activities make to sustainable forestry and to consider what role they may play in OWC efforts to manage for NTFPs. Of course there are always a few bad apples in every basket, but with a little screening OWC can find harvesters who will respect and help to take care of member lands while harvesting.

Table 1 lists some of the types of nontimber forest products being commercially harvested from northwest forests along with average shed (a term commonly used in the floral green industry that means where product is purchased) prices. The data comes from research done by Forest Resource Enterprises within the last few years in the Pacific Northwest (Smith, pers. comm.). Sheds come in all sizes--from small operations buying product out of garages, to large corporate warehouses. Often the small buyer is actually a field buyer for a larger operation, but some small buyers are independents collecting and reselling on the market wherever they can get the best price.

The gross per day earnings of harvesters cannot reliably be calculated from the data in Table 1 for several reasons. First, the sample size for some products is too small to allow generalization. Second, the price of many products decreases as the supply increases. For example, the price to harvesters of chanterelle mushrooms typically follows an upside-down bell curve with high prices at the beginning and end of the season when there are few mushrooms, and the lowest price in the middle of the season when mushrooms are most plentiful. Also, global supply and demand strongly affect many NTFP markets, historically driving prices in Oregon down when foreign product harvested in areas where labor costs are low floods the global market.

Before the OWC begins harvesting any NTFPs, it would be wise to contact businesses in the region and inquire about their expected needs and seasonal price trends. Keep in mind that many types of commodities can have volatile price fluctuations, but there are usually ways to mitigate volatility. For example, NTFPs can be dried and stored for sale at a later time when prices are more attractive, or by creating value added products like packaged goods.

Without a detailed inventory it is difficult to assess whether NTFP productivity on OWC lands would meet the productivity rates listed in Table 1. The daily productivity averages in Table 1 are based on harvesting that occurs on public and private forestlands. It is not possible to discern from the data the variability in productivity by size of property. Some of the productivity levels reported could represent harvesters gathering on small acreages akin to OWC lands, but it could also represent harvesters extracting from the best producing areas chosen from very large acreages such as national forests. For example,

some mushroom harvesters visit high producing patches located across many different large forests under different management and ownership.

A lack of scientific studies makes estimating NTFP productivity on OWC lands more difficult. Two reports have been done that provide some productivity estimates for a few products likely to occur on OWC lands. Both studies are based on inventories in the Willamette National Forest for salal (*Gaultheria shallon*), sword fern (*Polystichum munitum*), and beargrass (*Xerophyllum tenax*). One also includes Dwarf Oregon grape (*Mahonia nervosa*). A 1993 inventory was done by Musselman and Associates for the North Santiam Economic Development Committee. A 1992 report done by Mater Engineering of Corvallis for the Sweet Home Ranger District explores the possibility of creating an NTFP processing facility in the area.

Table 1: Partial List of NTFPs, Shed Prices, and Harvester Productivity on NW Forestlands

Product Example	Unit	Shed price per unit (variable)	Daily Productivity in units (variable)
Beargrass	Pound	0.39	250.0
Boughs-Douglas-fir	Pound	0.16	1,000.0
Boughs-incense cedar	Pound	0.40	1,000.0
Boughs-incense cedar (Umpqua)	Pound	0.40	500.0
Boughs-juniper	Pound	0.25	1,000.0
Boughs-mountain hemlock	Pound	0.25	1,000.0
Boughs-noble fir	Pound	0.31	1,000.0
Boughs-Pacific silver fir	Pound	0.28	1,000.0
Boughs-ponderosa pine	Pound	0.25	1,000.0
Boughs-Port Orford cedar	Pound	0.35	1,000.0
Boughs-redwood	Pound	0.55	1,000.0
Boughs-Shasta red fir	Pound	0.25	1,000.0
Boughs-shore pine	Pound	0.25	1,000.0
Boughs-western red cedar	Pound	0.25	1,000.0
Boughs-western red cedar	Pound	0.25	600.0
Boughs-western white pine	Pound	0.20	1,000.0
Boughs-white fir	Pound	0.25	1,000.0
Burls	Each	4.25	5.0
Cones-Jeffery pine	Bushel	4.50	25.0
Cones-lodgepole pine	Bushel	9.38	6.0
Cones-ponderosa pine	Bushel	2.29	60.0
Cones-sugar pine	Bushel	3.00	40.0
Edibles-elderberries	Gallon	12.00	33.0
Edibles-huckleberries	Gallon	30.00	33.0
Firewood-Douglas-fir	Cord	90.00	2.0
Firewood-hardwood	Cord	80.00	1.6
Firewood-mixed species	Cord	80.00	2.0
Firewood-western hemlock	Cord	70.00	2.0
Floral greens-cuttings	Pound	0.50	200.0
Floral greens-deer fern	Pound	1.00	100.0
Floral greens-horsetail (snake grass)	Pound	2.10	100.0
Floral greens-huckleberry (longs)	Pound	0.40	100.0
Floral greens-huckleberry (tips)	Pound	0.46	100.0
Floral greens-mini bracken fern	Pound	1.50	100.0
Floral greens-moss	Pound	0.39	250.0
Floral greens-ocean spray twigs	Pound	0.75	100.0
Floral greens-Oregon grape	Pound	0.80	100.0
Floral greens-pussy willow	Pound	2.00	100.0
Floral greens-salal	Pound	0.59	100.0
Floral greens-Scotch broom	Pound	0.50	100.0
Floral greens-swordfern	Pound	0.68	100.0
Medicinal-blue ore huckleberry	Pound	3.75	100.0
Medicinal-blue vervain	Pound	5.00	100.0
Medicinal-cascara bark	Pound	2.25	200.0
Medicinal-cleavers	Pound	12.00	50.0
Medicinal-dandelion	Pound	3.00	25.0
Medicinal-devil's club	Pound	6.50	25.0
Medicinal-elder flower	Pound	10.00	25.0
Medicinal-hawthorn berries	Pound	5.00	75.0
Medicinal-horsetail (snake grass)	Pound	0.75	150.0

Medicinal-lomatium root	Pound	6.00	40.0
Medicinal-melilot (sweet clover)	Pound	4.00	40.0
Medicinal-mullein leaf	Pound	1.50	100.0
Medicinal-nettle leaves	Pound	3.50	40.0
Medicinal-nettle root	Pound	3.50	40.0
Medicinal-nettle seeds	Pound	12.00	3.0
Medicinal-Oregon grape	Pound	0.50	50.0
Medicinal-prince's pine	Pound	6.00	50.0
Medicinal-Scotch broom	Pound	4.00	-
Medicinal-shepherd's purse	Pound	4.00	100.0
Medicinal-St. John's wort	Pound	6.00	50.0
Medicinal-usnea	Pound	8.00	25.0
Medicinal-uva ursi	Pound	8.00	50.0
Medicinal-water cress	Pound	3.75	35.0
Medicinal-yarrow	Pound	8.00	55.0
Mushrooms-black trumpet	Pound	3.50	20.0
Mushrooms-cauliflower	Pound	2.50	20.0
Mushrooms-chanterelles (white)	Pound	1.00	25.0
Mushrooms-chanterelles (yellow)	Pound	1.67	21.7
Mushrooms-chicken of the woods	Pound	3.00	20.0
Mushrooms-hedgehog	Pound	2.75	20.0
Mushrooms-king boletus	Pound	2.50	20.0
Mushrooms-lobster	Pound	2.63	20.0
Mushrooms-matsutake	Pound	7.00	20.0
Mushrooms-morel	Pound	5.00	30.0
Pitch	Gallon	35.00	2.0
Rails, hops poles, 2" small end dia, 12-20'	Each	1.13	168.0
Seeds-bear grass	Pound	15.00	-
Seeds-bitterbrush	Pound	7.00	-
Seeds-black hawthorn	Pound	2.00	-
Seeds-bunchberry dogwood	Pound	6.00	-
Seeds-ceanothus	Pound	3.00	-
Seeds-choke cherry	Pound	0.60	-
Seeds-creeping barberry	Pound	2.50	-
Seeds-Nootka rose	Pound	1.60	-
Seeds-Oregon grape	Pound	2.50	-
Seeds-Peking cotoneaster	Pound	4.00	-
Seeds-red dogwood	Pound	2.00	-
Seeds-Rocky Mountain maple	Pound	5.00	-
Seeds-russet buffalo berry	Pound	1.50	-
Seeds-service berry	Pound	0.65	-
Seeds-woods rose	Pound	0.95	-
Shakes / shingles bolts	Cord	450.00	1.0
Transplants-shrubs	Each	-	-
Transplants-trees	Each	-	-

Data for Table 1 is from Forest Resource Enterprises

Table 2 lists some inventory and volume estimates from these reports for a few species that likely occur on OWC lands. The findings differ greatly between the two reports, and therefore *should be used cautiously* in trying to determine production potential on OWC lands. The differences between the studies likely stem from a variety of factors such as how sites were selected (the Mater study examined only high volume sites while the Musselman study selected sites more randomly), what constituted a “bunch” for the unit of analysis, and soil composition and slope differences. In general, it appears that most of the slopes in both studies ranged from gentle to moderate. The numbers from these studies at least give an idea of possible quantities in western Oregon temperate forests ecosystems. Despite the differences in their numbers, the studies could be useful if OWC were to pursue a grant, loan, or other investment for NTFP development.

In thinking about productivity it's important to remember that studies such as those species listed in Table 2 are based on inventories of areas where there has been no management to intentionally increase productivity. The productivity of most NTFPs could probably be increased significantly by management strategies that optimize growing conditions (research is lacking so experiments are needed), by replanting after disturbances (e.g., fire, logging, harvesting), and/or by agroforestry strategies (e.g., growing ferns in containers under a Douglas-fir canopy).

Table 2: Productivity Estimates for Several NTFP Species on the Willamette N.F.

Product	Bunches/Acre	
	Mater <sup>i</sup> Report	Musselman <sup>ii</sup> Report
Salal ( <i>Gaultheria shallon</i> )	539	87
Sword Fern ( <i>Polystichum munitum</i> )	116	28
Bear Grass ( <i>Xerophyllum tenax</i> )	921	244
Dwarf Oregon Grape ( <i>Mahonia nervosa</i> )	44	not done

i (Mater 1992)

ii (Musselman 1993)

Nontimber forest product industries have been largely ignored in economic research and trade databases. However, data such as that presented in Table 1, discussion of products in the growing body of academic literature, and anecdotal evidence such as the vast quantities of wild species foods and foods made with wild products available in regional stores, suggest that NTFPs are indeed a significant part of the regional economy. Markets are likely to expand for many products in coming years as consumer demand intensifies. The Pacific Northwest is well positioned to help meet that demand given the great diversity and quantities of commercial species available here. The following statistics provide a sense of the significance of NTFPs in the region:

- From 1989 to 1997 the value of matsutake mushroom exports from the U.S. to Japan rose from \$2.5 to \$9.5 million. Exports in 1997 were 275 metric tons (Alexander et al. 2002).
- In 1989 the PNW floral greens industry was valued at \$128.5 million, \$47.7 of which was paid for plant materials. The industry was estimated to employ or buy raw materials from over 10,000 people (Schlosser et al. 1991).
- A 1992 study by Schlosser and Blatner (1995) estimated that the wild edible mushroom industry contributed \$41 million to the regional economy and employed over 11,000 full and part time harvesters and other workers.
- In 2005 the BLM of Oregon and Washington issued 733 permits (contracts) for the removal of 425,437.5 pounds of floral greenery (Gordon pers. comm.).
- In 1997, gross revenues from 22 floral greenery firms in British Columbia were estimated at \$55 million and the number of commercial harvesters was estimated at twelve to fifteen thousand (Wills and Lipsey 1999).

- The U.S. Forest Service reports that 103,662 commercial NTFP sales valued at \$1,666,880 took place in 2005 on national forests in Oregon and Washington (Duran pers. comm.).
- Mater estimated domestic wholesale sales for salal, huckleberry, sword fern, and bear grass in 1991 to be \$30-41 million and worldwide to be \$50-72 million.

Several important considerations to think about regarding NTFP profitability is the amount of acreage, range of products, and their value over time. A single species harvested on a small land holding may have a small annual value, but many species harvested on a small land holding over twenty five years may appear more significant to a land owner.

The previously mentioned 1992 study by Mater Engineering explored the possibility of establishing a NTFP processing plant that would utilize products supplied by independent harvesters from the Willamette National Forest and other surrounding forests. The study estimated that a processing plant could employ 14 people full time, make a profit in the first years, and achieve annual sales of \$2.3 million once in full production. The model relies on a combination of mid-wholesale level product sales and strategies such as direct marketing.

Another important consideration for profitability is to consider market niches related to NTFPs beyond raw extraction and selling. In a consumer-driven society such as ours the possible range of market niches is nearly endless so it can pay to be a broad thinking entrepreneur. The following list provides a few examples of market niches:

- Value-added Products - Value added simply means to add value at a particular stage of production. An example of adding value is to take a raw product like mushrooms, dry and package them, and then sell them to a wholesaler, retailer, or directly to the consumer. Oregon is already home to hundreds of small businesses based all or in part on nontimber forest products. Some of these such as Flora Pacifica ([www.florapacifica.com](http://www.florapacifica.com)) in Brookings and Myco-Logical Natural Products ([www.mycological.com](http://www.mycological.com)) in Eugene have national wholesale and retail distribution operations. Food items such as huckleberry jam are a common entry point for cottage industries just starting out.
- Roadside Stand for Tourists – Roadside stands can be very popular, and many OWC members live close to the tourist heavy Highway 26 corridor. Oregon currently has few roadside stands or stores that feature the bounty of wild products the state has to offer. It's not hard to imagine that a roadside stand featuring Christmas wreaths made of wild species of dried berries, leaves, boughs, and cones, or wild mushroom and truffle products, or huckleberry pies, preserves, and fresh berries, would become a regular tourist destination. Minnesota Wild is an example of a rural company that has a roadside store featuring a multitude of NTFP products ([www.auri.org/clients/mnwild.htm](http://www.auri.org/clients/mnwild.htm)).
- Recreational Permits – OWC member Tom Nygren has suggested recreational permits might be a potential source of revenue for cooperative members. A recreational permit could provide urbanites from the Portland metropolitan area and other people in the region an opportunity to experience harvesting first hand. Currently people can gather small amounts of wild products for free from state and

national forests in Oregon, but beyond picking wild berries most people in urban centers generally lack the knowledge about how to harvest other wild products and what to do with them. OWC members could become versed in and then guide people in how to harvest different products and how to make them into useful items such as wreaths. Another option is to work out an arrangement with an experienced guide, such as John Kallas of Wild Food Adventures out of Portland, to lead tours on OWC lands ([www.wildfoodadventures.com](http://www.wildfoodadventures.com)). It's even possible to link such visits to recreational camping, or staying at the home of the landowner such as is common in Scandinavian countries.

#### *How are Products Harvested and Processed?*

Most NTFPs are harvested by hand or by using simple implements like rakes, knives, and shovels. A few products, such as Oregon grape root, can be dug with a small backhoe, but depending on the quantity removed and level of disturbance, such an approach may impede future harvests at the site for some time to come or permanently. Most NTFPs require a specific technique for harvesting efficiently and sustainably. Furthermore, the commercial value of most NTFPs is dependent on their quality. Harvesters and buyers can be an excellent source of knowledge about how, what, and when to harvest various NTFPs, and there are a few guides that have good descriptions (see reference section #1 for examples).

Processing requirements vary greatly among NTFPs, and depending on the processor's end goals for the product. A lot of NTFPs simply move raw product directly to market, in whatever form they are harvested in, but some products must be washed, dried, or processed in some way. If the OWC or a member wants to do additional processing to capture more of the product's value, then they will incur additional expenses (i.e., additional fuel consumption, the need for a processing or storage facility, and equipment such as commercial dryers, walk-in coolers and freezers, storage space, packaging capacity, and conducting a shipping operation).

One of the biggest challenges that has hampered the sustainability of small NTFP businesses in Oregon is lack of capital reserves to meet purchasing and processing needs. Since good research describing NTFP markets is largely unavailable, it is difficult to construct a convincing business plan or apply for an economic development grant to raise capital. Thus, the vast majority of NTFP business enterprises are mostly cottage industries.

Having more working capital and infrastructure would benefit many small NTFP businesses. While some NTFP products like salal have relatively stable prices, many such as wild edible mushrooms have widely varying prices throughout a season. To stabilize revenue, mushroom businesses would benefit from being able to purchase quantities of fresh mushrooms when fruitings are high and the prices are low and to then dry and store them for off season when prices typically increase. A cooperative could potentially pool the members' capital and share resources such as a pole barn for storage to help members overcome capital barriers.

## **D. Micro-analysis: Considerations for Oregon Woodland Management Members**

### **Levels of Involvement**

- *The Hands-off Approach – Fee Based*

An OWC member who wants to earn income from commercially viable NTFPs occurring on his or her land may not want to be personally involved in harvesting, marketing, or processing the products. This landowner could charge a fee to others for the removal of product; the others would sell or process the product, and the landowner would not be further involved. The fee arrangement could take many forms. Some examples are a permit allowing a specific weight or volume of a product to be removed during a specific period, a long-term lease of exclusive extraction rights for one or more products, or a stumpage fee, which is a payment to the landowner of a percentage of the value of the amount harvested.

A permit system could be as simple as charging people a fee at the gate, perhaps even on a self-permitting honor system. Permits could be either exclusive or non-exclusive. Exclusive permits are generally more attractive to commercial harvesters, who will generally be more successful if they have access to a guaranteed quantity of product without competition. Some large private timber companies have used a lease system where harvesters bid for the renewable right to harvest NTFPs on company timberlands. Though a bid system might result in higher lease prices than if leases were offered at a set price, the system requires advertising and managing a bid process, and may, therefore, be less suitable for the small landowner.

- *The Hands-off Approach – Hiring Contractors or Employees*

Coop members can also hire others to do all or a portion of the harvesting, marketing, and processing. The hiring arrangement could be with individuals managed by the OWC member or a crew boss working for the member, or it could be a contract with a company which has its own crew. Under this scenario, the OWC landowner will need to become familiar with basic legal provisions regarding wages and hours, worker's compensation, tax withholding, and immigration laws prohibiting the hiring of people lacking authorization to work in the United States. Additionally, some types of contracting arrangements may be interpreted by the state as subject to state requirements for employment. OWC members can contact the Farm Forest division of the Oregon Bureau of Labor and Industries to see if they are in compliance.

The OWC member may need to learn where to sell or process products and will have financial risk. Additionally, the member will likely need to assume some level of management and supervision of the workers.

- *Doing It Yourself Approach*

In this scenario an OWC member is interested in earning income from commercially viable NTFPs occurring on his or her land and wants to do the harvesting, marketing, and/or processing. It would not take long for OWC members to learn which NTFPs can be harvested and how to harvest them. With a few books, talking with businesses, and ideally, having another harvester demonstrate techniques, an OWC member could be harvesting a variety of products in no time. Depending on factors such as quantities available, difficulty in harvesting them, and getting them to market, an

owner could probably make a few thousand dollars a year harvesting part-time. Some harvesters are able to support their families working full time, but they may be visiting harvest sites spread across vast acreages. If an OWC member didn't have a large parcel with good supplies of commercially marketable NTFPs then it is unlikely they could earn a full time income unless they were able to figure out how to manage their land intensively for high production, or higher value NTFPs like truffles or Devil's Club root.

- *OWC Provides Harvesting and Management Service to Members*

In this scenario members would use a service provided by OWC as a benefit to members. Such a service might include management, harvesting, marketing and/or processing components. One approach to the on-the-ground work of harvesting and management would be for OWC to contract or hire a permanent crew that did all the harvesting on member lands. The crew could report directly to the OWC Board or work under a crew boss who would recruit and supervise visiting harvest sites spread across vast acreages. An ideal situation might be if the crew boss had a solid forestry background and could also help with the management of NTFPs on all OWC lands.

Since many commercial species are likely to occur in small quantities on any single member's land, pooling harvests as a cooperative could help make species more efficient and profitable to harvest. This type of scenario could be implemented at both small and large scales involving just a few landowners or the entire membership. Under this scenario it's probably best to start with a small pilot program focused on a small number of products located on just a few parcels.

### **Identifying and Maintaining Contacts**

If harvesting of NTFPs on OWC lands is done by outside businesses, then OWC members do not necessarily need to spend time identifying and maintaining market contacts because that task will be taken care of by the businesses. This report includes a partial list of some regional businesses that buy products. The list is a starting point for OWC members who want to explore making extra income from NTFPs. If there is just one product that a member has to sell then this could be a simple process of making a few calls and negotiating a contract so that both parties profit. Under this scenario of using an outside business to do the harvesting, unless an OWC member has a large land holding with a large quantity of product, it's unlikely the member will realize much profit. However, it's conceivable that having multiple products harvested over several years could result in several thousand dollars annually for little investment of time or resources by the member. The business doing the harvesting could help estimate profit potentials.

If OWC members want to do their own harvesting (or hire someone to do it) then individual members, or OWC acting on behalf of members, will need to spend the time identifying market outlets (e.g., wholesale, restaurants, retail such as through the Internet). Unlike many agricultural and forest commodities there are few existing resources such as consultants, publications, or databases for NTFP markets. The more products and quantities OWC harvests, processes, and direct markets the more time-consuming and essential it will be to invest time in identifying and maintaining market contacts. At this level it would probably be most realistic to hire an employee or consultant to do such work.



## V. Operational Plan

The Operational Plan for the OWC is set within a broader organizational context. As with any organization, the more the people who belong to an organization know and support each other, the stronger and more effective the activities of that organization will be. More than any other business organization, a cooperative depends on its membership. Without an active, united, focused, educated membership, the cooperative would, over time, decline and fade away.

We believe we can build a strong member commitment to support and strengthen the Oregon Woodland Cooperative for the common good of all members by focusing some attention on the membership itself. We can learn from each other by hearing each other's stories, our "Stories from the Woods." We can share information and knowledge, not only to market woodland products, but also to keep our forests healthy. We can help each other learn the steps necessary to successfully pass our forests on to the next generation, forests that have been a large part of our lives and ourselves, forests that we don't want lost to developers and highways. By learning to know each other, we can build and strengthen the commitment to support and strengthen the Cooperative for all the membership.

Maintaining a strong, innovative, and adaptive member woodland cooperative requires there be an on-going assessment of the "world around" the OWC. The OWC, and its individual members, need to know what is happening in the markets as it affects the business plan and member interests, potential and developing threats and risks concerning forest health, financial trends and downsides, and management opportunities which could improve their forests and their bottom line. The OWC provides a basic research function to members through its contacts and relationships with educational and research partners, other organizations with similar interests. The following types of information are routinely assessed:

- ✓ Market factors, including product types, product quantity (demand), pricing structures, trends, and volatility
- ✓ Forest health changes, including fire hazard and risk, insect and disease potential
- ✓ Regulatory changes and trends
- ✓ Tax law changes and implications
- ✓ Educational developments, including management techniques
- ✓ Social developments potentially affecting members, such as forestland development

Members, through a standing committee and OWC staff assistance, are kept advised through the OWC newsletter, member interviews, and focused contacts, as appropriate.

There are four core activities that define the OWC and its relationship to members. These core activities - *clearinghouse*, *cooperative marketing*, *member operational services*, and *professional provider network* - are briefly described below.

### A. Clearinghouse

#### 1. Description

An active, connected, well-informed membership is vital to the continued healthy functioning of the OWC. It is easy to assume that every member knows what the Cooperative is doing, what opportunities are available, and what obligations are required of each member. Often, however, that is not the case. OWC members come from different backgrounds; they have different management goals for their properties; they have different income requirements from their properties; and they

come from different geographical locations within Oregon. The Clearinghouse with its four parts - contacts, human resources, bulletin board, and recruitment - provides the means by which to ensure an informed, connected membership.

**Contacts:** All of the contact information will be provided in both a printed format and an electronic format. The electronic version will be available on a secure website.

The following lists will be compiled and made available to the membership:

- alphabetical listing of the membership, including contact information and areas of expertise;
- a listing of partner organizations and the information or assistance they can provide such as: the Oregon Small Woodland Association, Oregon State University Extension Service, local water conservation districts, certification agencies, Oregon Department of Forestry offices, etc.;
- a directory of “shared” services including equipment, wholesale purchases, and contract services;
- market opportunities, especially for NTFPs and specialty milling products but also of traditional forest products, which will be updated frequently.

**Bulletin Board:** Because we all have different learning styles, it is important to connect the membership using different communication tools. A printed newsletter will continue to be published as needed (at least once each year) to advise the membership of management, Board, and member activities, to announce educational opportunities such as workshops and tours, to inform membership of market information and opportunities, to share our “stories” and other items of interest. This same information will be made available electronically on a secure website. For those who are not electronically connected, a telephone tree will be used to augment written information. A meeting of the entire membership will be held as needed - at minimum once each year.

**Human Resources:** One of the most effective ways to stay connected is person-to-person contact. When someone expresses interest in joining the Cooperative, we have a cadre of members willing to visit one-on-one with the prospective members to explain opportunities and obligations of membership. We also have a cadre of members who act as mentors for new members. Mentors take new members to workshops, tours and meetings, answer questions the new member might have regarding processes and procedures of the OWC, etc.

We have a wide variety of skills and talents within our Cooperative membership. Many of those individuals are willing to share their expertise with others. A listing of these members and their expertise appears in the membership directory.

We have some absentee owners among our membership. These owners find it difficult to monitor and protect their property in a timely manner. The Cooperative provides a cadre of members who provide a “woodland watch” service whereby regular visits are made to the properties and timely reports are made to the owner.

**Recruitment:** Retaining active members and obtaining new members is necessary to maintain a steady flow of marketable woodland products that provides the

Cooperative with its market edge. With an updated marketing brochure and display we will take advantage of marketing opportunities such as Tree School and the annual Oregon Small Woodland Association meeting to attract new members. A future activity is to conduct a direct mail recruitment of woodland owners having between 5 – 5000 acres within the state of Oregon.

Two events of both social and educational content will be held each year in addition to the annual meeting to encourage current members to remain actively involved.

To ensure the seamless passing of OWC membership from one generation to the next a policy has been developed to be added to the By-laws and submitted to the membership for approval. This includes passing of the membership/forestland as an entire unit, and the passing of the membership/forestland as pieces of the entire unit, as with the division of property between siblings.

## **2. Activity Initiation**

Time will be spent to query the membership, partner organizations, woodland organizations, and organizers of the “shared” goods and services to compile an accurate and comprehensive directory. Initially this will be handled by volunteers.

Because all directory information also appears in electronic forms, a webmaster will be contracted when funding is available to license a name, locate an appropriate host, build a template for secure web pages and begin the work of creating the pages.

Publication of the directory and newsletter will be contracted when appropriate. Ultimately, the educational/social activities will be organized by a staff member. In the interim, volunteers are organizing these activities. The annual meeting is organized by the Board of Directors.

A contract with a marketing company is being negotiated to upgrade the OWC display and marketing brochure, and to develop the protocol necessary for direct mail recruitment. A cadre of member volunteers will be trained to market the Cooperative at woodland events.

## **3. Activity Management**

Ultimately, a paid staff member will oversee the clearinghouse activities. In the interim, an ad hoc committee will divide the responsibilities to ensure their completion.

# **B. Coordinated Cooperative Marketing**

## **a. Product Scheduling**

### **1. Description**

Cooperative member properties have the ability to produce a wide range of timber and non-timber products. Consistent access and market connections will enable stability in market returns, and result in forests being retained in the long term in a productive condition. Members can capture higher values when member products are marketed cooperatively. The income advantage is derived from the OWC’s ability to use the larger aggregated volumes and amounts to acquire market leverage – reflected in higher prices and improved market access. Members

acquire flexibility in product management because they are able to market their minor product amounts (though they must still retain their individual economic interest in their product under current tax laws). Market sources will benefit by having a defined amount of product identified and available over a time horizon dictated by their rate of consumption. Where markets are not fully developed, the OWC has the ability to create special markets and market opportunities available only to OWC members.

To acquire this leverage, the OWC needs two basic prerequisites: the participation and commitment of OWC members, and adequate information about the nature and amount of the product available over time.

The OWC searches markets for favorable supply/price schedules using product information and member support. Long term agreements are then be negotiated to the mutual advantage of both OWC members and market sources. The OWC assists members in realizing the advantage of coordinated schedules by providing technical support in product inventory, current market contracting, harvest layout and administration, and record-keeping.

## **2. Activity Initiation**

Coordinated product scheduling requires active management by the Cooperative. The primary tasks involved are:

- identification of available product by type, quality, and timing
- obtaining member commitment to participate in OWC marketing
- identifying market sources for OWC products – agreement to participate
- negotiation of product schedule agreements, including timing, amount, and price

## **3. Activity Management**

Coordinated product scheduling requires working with both members and market sources. A consistent, skilled, and available staff presence is necessary to accomplish an effective and efficient product scheduling operation. Skills required include both marketing skills involving in-depth forestry knowledge (forest management, harvest, products), and business management skills (record-keeping, fiscal management, tax obligations, and reporting).

### ***b. Non-timber Forest Product Market***

#### **1. Description**

Members of the OWC have a unique opportunity to develop a supply and marketing capability for non-timber forest products. Landowner goals and objectives for the land included in an NTFP inventory will determine what questions need to be asked and what methods to use. For example, if the goal is a profitable salal harvest, simply knowing the abundance and cover of salal will be less useful than knowing the abundance of commercially marketable salal in areas where harvesters can remove bunches efficiently. A systematic inventory and management plan tracks wholesale shed (a term commonly used in the floral green industry that means where product is purchased), prices, looks at unit of measure information, estimates daily production, and factors in costs such as round trip miles between harvest sites and points of sale. The system allows the

user to collect data regularly from commercial harvesters and buyers with current information. Since many NTFP products have wide price fluctuations, this tool is useful for tracking market conditions.

Discerning the profitability of NTFPs for OWC members will take time. Some OWC members are already involved in NTFP commercial activities with ferns, truffles, firewood, and other products. These small-scale efforts can provide useful financial data that can be collected by OWC and analyzed for steps that can be taken to improve and expand operations to greater levels. While these current activities may currently generate only small revenues and not appear as significant revenue streams to many members, it is important to remember that they have been occurring without an investment of time and resources from the OWC or other potential sources of help. Examples of other sources include economic development grants and collaborative projects with Universities, government, or regional nongovernmental organizations.

Should OWC want to move toward substantial investment in NTFP procurement, processing, and/or marketing, the Mater study (referenced in the market analysis) provides an example of the range of factors to be considered, including start-up costs, production capacity, facilities, employees, and value added issues. Some of the industry trends described in the report involve domesticated products that would not be appropriate for OWC. The pro forma evaluations are based on a conceptual business approach with many assumptions about product supplies and market trends.

*Assumptions would need to be verified, and most of the information would need to be updated and adapted to specific OWC conditions.*

## **2. Activity Initiation**

The first step in OWC involvement in a NTFP enterprise – under the option of the OWC providing a harvesting and management service – is identifying which members have both the interest in NTFP marketing, and a sufficient inventory of NTFPs that are marketable, as well as developing relationships with harvesters and market sources to learn if available products are marketable. An economic model based on this information could then be developed to determine feasibility, start-up costs, and other factors.

## **3. Activity Management**

Although it is possible to realize profits from small-scale NTFP harvesting without actively managing for their productivity, sustaining a supply for medium to large commercial operations will depend on a plan for managing production sustainably. A forest management plan can help members to do the following:

- Establish short and long-term goals and objectives for their property;
- Realize resource inventories and understand current land conditions;
- Determine resource protection and enhancement measures that need to be implemented;
- Outline steps and a timeline to accomplish goals and objectives.

Given the limited information available on how to manage for NTFPs sustainably, such a plan will be need to be an evolving document that is updated as new

information becomes available. In addition to future scientific studies and other types of research, OWC members will need to develop their own information as they experiment with how to manage NTFP resources.

Additionally, they can network with other landowners to share information, for example, through the Oregon Small Woodland Association, as well as OWC itself. Furthermore, harvesters and NTFP businesses can be important sources of knowledge related to planning and managing NTFPs on a sustainable basis.

#### **4. Activity Monitoring**

Essential to understanding sustainable management is monitoring ecological change. Many factors affect change, including climate, diseases, harvesting, and activities such as logging that can affect NTFP habitat. Monitoring can be an important tool for collecting data that will inform OWC members how to co-manage timber and nontimber resources and avoid harming sensitive plants. Informally, monitoring can consist of nothing more than periodic visual observations of the landscape. Formally, monitoring can involve setting goals, choosing indicators in the ecosystem that can be measured, setting up sampling designs, and collecting and analyzing the data. The level and type of monitoring that is chosen will depend on a host of factors, especially needs and resources (time and money). The monitoring itself might be performed by contracting out, done in collaboration with scientists, or done through a participatory process using volunteers and other nonprofessional help. Whoever does the harvesting will likely be the person(s) most often interacting with the resources and in a good position to contribute observations. Most harvesters will probably be honored to share their observations with you, but as more is asked of them beyond harvesting (e.g., collecting data on plots) they should be compensated accordingly.

OWC members that have small-scale NTFP operations can probably get away with minimal monitoring. As operations become larger it will likely become more important to do more intensive monitoring (in consultation with a scientist) to make sure that the resource and habitat is healthy and being managed properly. Not only do owners want to keep their land healthy, but they may need to demonstrate to the market that they have a reliable supply of product. Monitoring can be useful for getting and maintaining product certifications for sustainable management and products like the Oregon Tilth certification for agriculture and the Forest Stewardship Council certification for forestry. Such certification can require forms of monitoring. To be certified you must demonstrate that certain criteria for sustainable management and production is met. Being certified can result in higher values for the products harvested on your lands. Currently there is very little certification for nontimber forest products in the United States. In part this is because certification standards are in an early phase of development and there is not enough research for most products to base criteria on for sustainable management. State and regional standards will eventually emerge for many NTFPs.

## C. Coordinated Member Operational Services

### a. *Shared Equipment (Members)*

#### 1. Activity Description

The OWC plans to establish a list of equipment that members are willing to share with other members. The list will be created and maintained by a volunteer shared equipment committee (SEC) until an OWC staff member is available. It will include name and contact information of the owner, and a description and photo of the equipment. The list and photos will be available online and will also be printed. Members will contact the equipment owners to make arrangements between themselves. This service is expected to be free to members because they are to make all of the arrangements themselves.

#### 2. Activity Initiation

The first task is to get a list and photo from each member of the equipment they are willing to share. The list needs to detail the condition and location of the equipment, and anything the owner wants to say about it. This list will be assembled by OWC volunteers, and distributed to members. Members are under no obligation to share equipment.

#### 3. Activity Management

The shared equipment committee (SEC) will update the list of equipment and the owner information as it becomes available. The updates will be published and distributed every six months, depending on the frequency of changes. This activity coordinated by the OWC staff when it becomes available.

### b. *Shared Equipment – Rental between Members*

#### 1. Activity Description

We believe there is a need for forestry oriented equipment that is not available in commercial rental yards. Some of our members own forestry equipment that they would be willing to rent to other members.

The renter benefits by being able to work with equipment they would otherwise have to buy, or forego an activity, such a move small logs with an arch. The cooperative benefits by helping members, and by collecting a fee for the transactions.

The SEC will develop and maintain a list of equipment, until a staff member becomes available, that members own and are willing to rent to other members. The list will be circulated to members who are interested in participating, and will updated regularly with changes in equipment, in rates, availability, and the equipment location. The OWC staff member will run this activity with funding to come from a portion of the rental fee. A master rental agreement will be developed and the necessary insurance purchased. The OWC staff will issue the rental invoice, collect the rental fee, pay the equipment owner. The OWC will not purchase nor take possession of the equipment. It acts as a clearinghouse to help both owner and renter. The owner sets the rental rates and conditions, such as whether it is only available with a furnished operator. Equipment owners will assist renters fill out a rental agreement which is submitted to the Cooperative office for payment. The agreements would allow the rental to take place without

the cooperative representative being there. The cooperative responsibility would not be for the equipment, or its performance, but would keep a record of reported performance of the equipment.

**2. Activity Initiation**

The first task is to compile a list of equipment owned by members who are willing to rent to other members. The second task is to set a rental rate that is sufficient to cover repair and eventual replacement costs. Rates need to be below commercial rental rates for similar items, but worthwhile to the owners. The cooperative will obtain necessary insurance to cover the equipment owner, renter and the Cooperative.

**3. Activity Management**

An excellent record keeping and tracking system is required to avoid confusion. A coordinator who can personally deal with the members, and clearly explain required procedures is needed. The coordinator will promptly submit invoices to renters and payments to owners. The coordinator may need to request equipment be returned, or even go get it if necessary, then charge for retrieval.

Initially, a volunteer will compile a list of owners willing to rent equipment, rental rates, and contact information. Members who want to rent will contact member owners directly to arrange to rent equipment. The cooperative will develop furnish the rental forms and purchase the necessary insurance.

**c. *Equipment Rental – Cooperative-owned equipment***

**1. Description:**

Members often need equipment for specific management activities, but because of the infrequency of use, or cost of the equipment, it is not feasible to purchase it. The OWC proposes to lease or purchase equipment that would be used by a significant number of members, and offer it to them on a rental basis. This equipment could include items such as logging arches, specialized pruning equipment, winches, etc.

**2. Activity Initiation**

The first step is to poll the membership to determine the level of interest in renting specialized equipment, the type of equipment desired, and what they are willing to pay. The rental fee needs to be sufficient to cover maintenance and replacement of equipment, insurance, and personnel to keep track of equipment.

A source of funding to purchase equipment needs to be found. Initially we can poll our membership for someone willing to purchase equipment then lease it to the OWC. The OWC would in turn rent it on a short term basis to members.

**3. Activity Management**

A member volunteer will initially coordinate this rental activity. Whoever purchases equipment will store and maintain it. The volunteer will place an ad in the OWC newsletter and on the website, receive the calls, arrange the rental, instruct the renter about operation, receive a down payment on rent, check in the return, collect the final rent, and arrange for any repair. The volunteer would

deposit rental funds in the OWC bank account. This activity would shift over to OWC staff as soon as possible.

**d. Firewood processing**

**1. Description**

OWC members often have a supply of low quality wood left from harvest activity or from natural occurrences for which there is no market. Sometimes the wood can be used for specialty milling; but other times the wood is left on the ground to rot. Instead of losing the market value of this wood, OWC members have the opportunity to convert this "waste" wood into firewood to sell to urban markets such as convenience stores and parks.

**2. Activity Initiation**

The OWC, through its shared equipment program, will purchase a wood-splitter and a bundler which members can rent by the hour with a four-hour minimum. Supplies for the bundler are included in the rental fee. To ensure consistent quality, each bundle is cut into 16" lengths and fills the basket of the bundler (approximately 1 cu.ft.). A label including the Cooperative logo, website, and telephone number is attached to outside of each bundle. As a customer service, directions for building a fire may be inserted into each bundle.

Vendors for selling the firewood are obtained through the Clearinghouse. Cooperative members are responsible for cutting their own wood, seasoning it, packing it into bundles, labeling it, transporting it to the vendor and supplying the Cooperative office staff of the amount delivered.

The Cooperative is responsible for purchasing, renting, and maintaining the splitter and bundler; maintaining a list of vendors for the firewood through the Clearinghouse; keeping track of the firewood inventory; contacting the members when vendors requests more firewood; issuing invoices to the vendors for firewood delivered; collecting payment from the vendor and paying the Cooperative member their portion.

**3. Activity management**

To begin with, a Cooperative staff member is responsible for coordinating equipment rental, obtaining and billing the vendors, purchasing supplies, paying members, and notifying members participating in the firewood project when a vendor needs more wood. A volunteer member will provide needed maintenance and storage of the equipment when it is not in use. Eventually, a second staff member will maintain the equipment and a storage facility for the equipment will be arranged.

Periodic spot checks of the firewood bundles will be made to ensure a consistently high quality product. A business-reply postcard is enclosed in 20% of the bundles with easy to answer questions for customer satisfaction. The postcard is returned to the Cooperative office.

*e. Specialty Milling*

**1. Description**

The Oregon Management and Sales Cooperative is not currently involved in any specialty sawmilling. It is a general feeling that the addition of this activity would be of major use and help to the general membership moving forward. There are several areas on the average tree farm throughout the year that a small mill and specialty sawmilling could be of major economic value in addition to value-added categories. Examples of common uses for small mill services could be: wind throw occurrences, less than a log load of product which would make marketing to a large mill both impractical and uneconomical, less than truck load left over after a large harvest and marketing, milling small quantities for ones own personal use such as building projects and maintenance needs around the tree farm.

Another major use would be specialty milling for value-added advantage. This would give the cooperative members a greater chance of capturing high value, low volume products that generally are left in the forest with no economic value ever being captured.

**2. Activity Initiation**

A committee of members and board members determines the level of annual needs of the general cooperative membership. If the need is of sufficient volume the next step is to contact individual sawmill owners and operators and find the mill owners who will work closely with the cooperative membership at a competitive rate for services rendered. This could be of interest to small mill owners since the cooperative activity could represent a large volume of future work as well as being listed on the cooperative list of professional contacts. Before any project of this type could be initiated we would always keep in mind the basic needs such as source of material, what does the market place desire and/or need. The land owner would probably need equipment to move the product around and a place to store and dry the product. In some cases a lumber grader may be needed to use product in a building that needs to meet local building codes. In other cases the land owner may need to assist the mill operator to make things even more cost effective. While accomplishing these tasks one must be aware that at times lumber or product may need to be kiln dried rather than air dried making a source and location of a kiln important.

If the project is initiated properly the cooperative members could produce items such as: beams and posts, mantels, drop siding of fir and cedar, flooring, specialty shelving as well as the production of animal bedding from chips and sawdust. In most cases this activity would move some percentage of forest product out of the commodity market and diversify ones income while adding economic value to the bottom line by virtue of value-added marketing.

All of these opportunities would be listed in the OWC newsletter and on the website.

**3. Activity Management**

Management of these activities will be the responsibility of an OWC staff member. This staff person maintains the list of providers, monitors the activity for problems and success, and reports frequently to the OWC Board of Directors.

*f. Shared Purchasing*

**1. Description**

The cooperative helps members buy chemicals or tools more at favorable costs. Larger purchases are often sold at closer to wholesale rates than retail rates. An order of chemicals (or other supply item) can be assembled, and grouped to save the individual costs of delivery, invoicing, credit clearance, and order taking. The same advantages apply to hard-to-find tools where discounts are available for large orders. The cooperative gains by charging a small share of the invoice for the service. In specific cases, the OWC may consider becoming a franchised dealer for member or non-member sales of equipment or supplies.

**2. Activity Initiation**

The knowledge of an attractive group price is the starting point, after which the members are contacted for participation. An example is aerial spraying in the spring for weed control. Individual land owners may not have enough acreage to engage a helicopter, but together through the cooperative they can secure the helicopter service and chemicals.

**3. Activity Management**

A volunteer cooperative member determines the chemicals or tools for which there was a demand, and if it fits the needs of enough members to make worthwhile a search for an attractive group price. The OWC staff performs the details of finding a supply source, arranging attractive prices, collecting orders from members, arranging payments from members, setting delivery sites, and arranging delivery of the product or service.

A volunteer will need to organize this activity until paid staff is obtained.

*g. Shared Contract Services*

**1. Description**

OWC members perform many similar activities in managing their woodlands. Often these activities involve contracting for resources beyond their own capability, either because the activity requires a large labor force (as, for example, reforestation or pre-commercial thinning), because the particular activity requires a costly specialized skill and equipment combination (as, for example, aerial herbicide application) that requires a large scale commitment, or other appropriate situations.

In these situations, the OWC can provide the catalyst and technical assistance needed to provide members with the opportunity to accomplish their management activity through an OWC organized contract service.

**2. Activity Initiation**

OWC organized contract services are initiated by an annual or semi-annual request for services notice to members. Members interested in a particular service indicate their interest and provide information on size, location, timing, and other aspects of the activity to the OWC staff. OWC staff then develops a proposal for services, gets commitment from interested members, and solicits bids for the service from available contractors.

### **3. Activity Management**

The contracted service activity is managed by the OWC, under the terms of the contract negotiated with the contractor. Members are utilized as inspectors for the activity on their woodland. Cost of the service is billed through the OWC to the members.

## **D. Professional Providers Network**

### **1. Description**

The OWC currently has a consulting forester under contractual basis who provides for a variety of forestry services, many of which are described under “Forest management” below.

The OWC members have a variety of professional service needs. Most often their need is project related, and for any one member usually occurs infrequently. In the future, the OWC would like to offer members a variety of professional services, under a contractual basis. The types of professional services could include the following:

- a. Forest management, including planning, silviculture, and timber harvest, reforestation, and others. Within this suite of services there may be particular special needs, such as Forest Stewardship Council certified management.
- b. Engineering, including road layout and construction, reconstruction, and maintenance; bridge and culvert design and installation.
- c. Wildlife habitat improvement and management.
- d. Land surveying and boundary location under a state certified authority.
- e. Others as identified by member need.

### **2. Activity Initiation**

The first step to initiate a network of professionals as described above is to determine member needs, with some quantification of that need by amount and timing. Next the availability of qualified and available professionals to meet those needs must be determined. Finally, contractual arrangements must be negotiated with the professionals, at a price and under conditions acceptable to members.

### **3. Activity Management**

The network of contracted professionals must be maintained and adjusted as needed over time. Responsibility for management of the network, including maintaining regular communications with the professionals, contacts and inquiries to OWC membership, and periodic re-negotiations must rest with a designated manager, preferably an OWC staff member.

## **E. Activity Reporting**

Systematic feedback protocol will be developed for each activity including both providers and member users. A periodic audit of each activity will be prepared by the responsible volunteers or OWC staff and submitted to the Board of Directors. A comprehensive report will be submitted annually. The report will include participant feedback, survey results, nature of projects performed and/or contracted activities, size of activity, frequency of activity or activities, income generated and costs incurred. The report(s) will be made available to the membership as a whole at the annual meeting. Adjustments to policies, activities and projects will be made as needed.

### III. Implementation Scenarios

#### A. Full Implementation

The most desirable situation is that the OWC is able to move forward with implementing all the core activities during the first year of the business plan. Funding is adequate to provide the staffing, office, equipment and supplies, and capital investments (for some activities) necessary for the activities, and the activities are desired by members and feasible to implement.

The following scenarios are based on Full Implementation:

##### **Clearinghouse**

###### *Start-Up Needs*

Clearinghouse activities, which revolve around member communication and education, data and information collection and application, external contacts and relationships, and OWC process management, will be critical to implementing the business plan. The Clearinghouse function will also provide the base for coordinating business plan implementation. The start-up period requires that the Clearinghouse functions precede other activities.

###### *1<sup>st</sup> 5 Years*

Following start-up, the OWC staff will provide the coordination and communication needed to inform members, as well as external contacts. Another major task will be to work closely with member teams in establishing and implementing the core activities described below. An implementation schedule will be established which will coordinate the common needs of the core activities, including staff time, office management needs, member participation, and other elements of business plan implementation.

###### *Fully Operational Status*

When fully operational, the Clearinghouse will be a “nerve center” for the OWC. While the Clearinghouse will continue to work with core activities, it will assume an important role of expanding member recruitment and influence in the community and with cooperating organizations.

##### **Cooperative Marketing (Timber and Non-Timber)**

###### *Start-Up Needs*

This type of marketing is not currently established in the OWC. Creating the organizational climate and resources to begin will require a front-loaded investment in staffing to build relationships with both OWC members and market sources. Volunteer staffing is not sufficient. There needs to be a OWC employed staff person with both forestry and business knowledge and skills, and who is able to build the confidence of members and market representatives. The staff person must also gather and manage the necessary information about the resources available for marketing over defined time periods. Office space and office support for the staff person will be necessary.

###### *1<sup>st</sup> 5 Years:*

The first several years will be a “building” period, with a negative profit/loss fiscal condition. The goal is to create a break-even condition within this period. The focus will be on those products which are likely to reach this condition the soonest, but at this time it is not clear

which products those are. Traditional products – commodity timber – are an early priority because of existing markets and past marketing experience. Non-timber forest product marketing will develop slowly, and may require additional financial assistance for OWC members to become interested, and knowledgeable enough to create marketable products. The OWC staff person and professional providers will be key to the success of the program. Innovative and entrepreneurial action by staff, professionals, and OWC members are necessary to develop the program.

#### *Fully Operational Status*

When a fully operational status is reached, the program should be more than self-sustaining. The operating model is based on members offering products according to a schedule to which they have agreed and the OWC developing contractual agreements with market sources. The result is members taking advantage of the leverage of a larger supply, and higher prices resulting from market and product knowledge. The OWC in effect acts as a broker for members.

### **Operational Services (Contracted Services, Purchasing, Equipment)**

#### *Start-Up Needs*

The OWC does not presently offer any type of shared service. Members do have similar needs, and the opportunity exists to offer services through the OWC at a reduced price and convenience to members. The OWC will obtain a return from providing the service. Volunteers cannot provide the consistency and amount of attention needed to provide this service, so a OWC staff member is necessary. An office and office support is also necessary to support the activity. The staff person needs to understand the nature and use of the shared equipment, service, supplies, or activity offered, and must be able to manage the business aspects. See separate subcategory analyses on page 86.

#### *1<sup>st</sup> 5 Years:*

Since these types of services have not previously offered by the OWC, there will be a transition period needed to set up the services and establish an ongoing “clientele” among members. During this period, the activities will have a negative profit/loss ratio.

#### *Fully Operational Status*

When a fully operational status is reached, the program should be more than self-sustaining. The operational model is that the OWC becomes the broker-facilitator for providing a variety of services. In some cases this may result in the OWC becoming franchised by a manufacturer to offer their products. In other cases it may simply be a contractual agreement between the OWC and a service provider or supplier. The OWC will obtain a return from the service or activity, and will offer members an advantageous price.

### **Professional Provider Network**

#### *Start-Up Needs:*

The OWC currently has a professional forester who provides a variety of forestry services to members. The Network will expand these services to meet member needs for types of expertise. Initial costs will include determining member needs, available professionals to meet those needs, and establishing a contractual basis for providing the services.

#### *1<sup>st</sup> 5 Years*

Initially it is likely that members will continue to use the types of service historically provided. However, through an education and familiarization program with members, the

need for additional service providers will grow. Costs during this period will be related to educating members, evaluating service providers, and associated administration (accounting and other business functions).

#### *Fully Operational Status*

A fully functioning Professional Provider Network will be administered by OWC staff, which is supported by a return on the value of services provided. Provider performance and member satisfaction will be monitored by OWC staff, and adjustments made as directed by the OWC Board.

## **Summary – Combined OWC Implementation**

### **Assumptions:**

- A full time OWC staff manager is necessary for full and effective business plan implementation.
- A OWC office is needed for full and effective business plan implementation.
- The OWC office needs to be equipped with a computer operating systems (hardware and software), telecommunication and internet capability, and records storage.
- A 1-5 year phase-in period is needed to achieve full plan implementation.
- The back-up for having a OWC staff manager and functioning office is to continue to use member volunteers. The pace and effectiveness of plan implementation will be significantly reduced.
- Income generation from OWC activities will be small initially, but will grow rapidly as the OWC staff and member volunteers are able to develop the programs and recruit participation.
- An initial infusion of capital is needed to “jump-start” the plan. The most appropriate source is a capacity building grant.

### **Start-Up Needs:**

The OWC is now operated by a combination of volunteer members who function as officers, and management and administration services provided by the OWC’s professional forester. Administering the OWC under the expanded scope and size of operation envisioned by this business plan will require that a constant administrative presence be established, operating from a functioning business office. A full time OWC staff manager will permit the OWC to initiate implementation of all business plan activities. Less than full time requires scaling back on the number and/or pace of activity implementation. A minimal level of business plan implementation will result from the OWC relying on volunteer staffing. An office is necessary for efficient implementation, and the office needs to have at least minimal support capability, including computer software and hardware, and communication capability.

<i>Costs:</i>	Staff time @	\$35,500
	Office rental	3,600
	Office furniture	700
	Computer	1,500
	Printer	500
	Software	650
	Phone equip.	150
	<b>Total</b>	<b>\$42,600</b>

**1<sup>st</sup> 5 Years:**

Following start-up, the OWC staff will work closely with member teams in establishing and implementing the core activities described below. An implementation schedule will be established to organize and coordinate activities, and provide a “road map” that enables OWC members to determine when and where they can most effectively benefit. The goal for plan implementation will be to reach the point of financial sustainability as quickly as possible, concomitant with providing real and meaningful benefits to members.

<i>Costs:</i>	Staff time @	\$35,500
	Office rental	3,600
	Communications	1,115
	Insurance	1,500
	Account/Audit	3,000
	<b>Total</b>	<b>\$44,715</b>
 <i>Income:</i>	Shared Contract Services	\$3600
	Preferred Provider Network	23,375
	Coordinated Product Scheduling	1,100
	Shared Services:	
	Firewood	3132
	Special Milling	2,016
	Purchasing	350
	<b>Total</b>	<b>\$31,557</b>

**Fully Operational Status**

Fully operational status may be achieved earlier than five years, depending on the amount of start-up support generated, and the extent to which members participate in the plan activities. It is defined as the point of financial sustainability. At this point outside support is no longer needed to fully implement the plan, and all activities are underway.

<i>Costs:</i>	Staff time @	\$35,500
	Office rental	3,600
	Communications	1,115
	Insurance	1,500
	Account/Audit	3,000
	<b>Total</b>	<b>\$44,715</b>
 <i>Income:</i>	Shared Contract Services	\$3,600
	Coordinated Purchasing	1,750
	Preferred Provider Network	23,375
	Coordinated Product Scheduling	1,100
	Shared Equipment:	
	Firewood	3,430
	Special Milling	4,800
	Other Equipment	6,660
	<b>Total</b>	<b>\$44,417</b>

## Coordinated Operational Services

### Subcategory Analysis

#### Contracted Services

This subcategory includes many possible types of forest management activities, such as reforestation, herbicide application, pre-commercial thinning, and slash disposal. The OWC determines member needs: type of service, amount needed, timing – and then surveys the market for available providers. The OWC then negotiates open-ended contracts, at favorable rates, and obtains member commitments. OWC staff administers the contract for members.

The OWC recovers 15% over the contract amount to support the activity.

#### Estimated Volume of Business – Full Implementation

Aerial spray - 10,000  
 Reforestation - 10,000  
 Pre-commercial thin - 2,000  
 Moisture control -2,000

**(OWC fee @ 15% = \$3,600)**

#### *Estimated Expenses:*

The primary expense is for OWC staff time, and the related office and office support costs.

#### Coordinated Purchasing

The OWC provides a purchasing service for members, providing a variety of tools and supplies desired by members. By making purchasing agreements with suppliers, the OWC can offer discounted prices and still recover costs for the OWC. For items or supplies that are in constant demand, the OWC can carry an inventory (which will require operating capital to purchase and storage space). Items used infrequently – or large costly items – are handled by ordering for delivery. Where there are not franchised dealers in the area, the OWC can become a franchised dealer and offer items to non-members as well as members.

The initial cost of establishing a purchasing service involves surveying members about their specific needs, and then determining the feasibility of meeting those needs efficiently.

#### Estimated Volume of Business – Full Implementation

Tools – \$2,000  
 Consumables (herbicides, fertilizer, marking paint, etc) – \$10,000  
 Logging and other Equipment - \$5,000

**(OWC fee (10%) = \$1750)**

#### *Estimated Expenses –*

The primary expense is for OWC staff time, and the related office and office support costs. To the extent there is a storage need, there may be a cost for storage.

## Shared Equipment

### a. Firewood processing

OWC members frequently have a supply of low quality wood left over from a harvest, thinning operation, or from natural occurrences such as wind blow-down, for which there is no market. Sometimes the wood can be used for specialty milling; but other times the wood is left on the ground to rot. Instead of losing the market value of this wood, OWC members have the opportunity to convert this "waste" wood into firewood to sell at urban markets such as convenience stores and farmers' market.

The OWC, through its shared equipment program, will purchase a wood-splitter and a bundler which members can rent by the hour with a four-hour minimum. Supplies for the bundler are included in the rental fee. Additionally, a \$.25 per bundle OWC charge will be assessed.

Estimated Volume of Business

Equipment rental and bundle production (2500 bundles)

**(OWC fee = \$3,430 equipment rental and per bundle charge)**

*Estimated Expenses:*

#### ***Start-up***

Splitter	\$1600
bundler (includes plastic wrap)	2900
labels and stationery	400
<b>Total</b>	<b>\$5,200</b>

#### ***Operating***

The primary operating costs are for OWC staffing and office costs, and replacement of plastic wrap, labels, etc.

### b. Special milling

There are several areas on the average tree farm throughout the year that a small mill and specialty sawmilling could be of major economic value in addition to value-added categories. Examples of common uses for small mill services could be: wind throw occurrences, less than a log load of product which would make marketing to a large mill both impractical and uneconomical, less than truck load left over after a large harvest and marketing, milling small quantities for ones own personal use such as building projects and maintenance needs around the tree farm. Another major use would be specialty milling for value-added advantage. This would give the cooperative members a greater chance of capturing high value, low volume products that generally are left in the forest with no economic value ever being captured.

Estimated Volume of Business:

120,000 board feet @ \$.04/bf = \$4,800

**(OWC fee (.04/bf) = \$4,800)**

Estimated Expenses:

OWC expenses are primarily staff time in coordination and record-keeping.

**c. Other Equipment (i.e. fire tanker, skidding winch, logging arch)**

Specific strategies for other types of equipment which could be shared by OWC members can also be developed. There is a wide range of potential equipment that members might desire to use, but cannot purchase because of cost or infrequency of use. Some specialized equipment is simply not available for rent. The OWC proposes to lease or purchase such equipment for member use, at a reasonable rate that includes a small return to the OWC to help support the necessary coordination, risk, record-keeping, etc.

Some of equipment that might be purchased or leased for member use could include:

ATV or tractor forwarding arch	\$1540
JR Arch	490
Ascender (for pruning)	2300
New Standard Saw	95
NZ two-piece ladder, with platform	304

The arches, ascender, and ladder, being uncommon equipment, would rent for 1%/day.

Estimated Volume of Business:

Rental fees      \$9,300 (gross)

Estimated Expenses:

Sales costs              \$2,640

**(OWC fee = \$6,660)**

**Professional Provider Network**

The OWC maintains a list of professional providers (foresters, engineers, biologists, etc) which cover the range of identified member needs. Contracts are negotiated with the providers that allow members to acquire their services at preferred rates. The OWC retains a fee for the service, but it is expected that the member benefits from quality service at preferred rates, and the provider benefits by having the referral that might not otherwise be available. The OWC fee is based on appropriate measures related to the service. For example, as is currently done, the fee is related to the volume of product or service provided, as in acres, board feet, etc. The OWC builds the list of needed professional services by member survey, and providers are identified by referral and market contacts. A contract template is developed, and is modified to fit each provider. The OWC manager oversees the coordination of members and providers.

Estimated Volume of Business:

100 acres @ \$5/ac. =	\$500
Reforestation – 30 acres @ \$5/ac =	\$150
Roads/surveys - .1 mile @\$1,000/mile =	\$100
Harvest – 570 mbf @\$500 x 5% =	\$14,250

Marketing – 275 mbf @\$500 x 5% =	\$6,875
Estate planning – 100 ac @\$5/ac =	\$500
Wildlife habitat – 50 ac @\$5/ac =	\$250
Thinning – 50 ac @\$5/ac =	\$250
Cruise – 100 ac @\$5/ac =	\$500

**(OWC fee = \$23,375)**

Expense is part of OWC office, or borne by provider.

## **B. Phased-in Implementation**

If funds are not available to fully implement all core activities simultaneously, a phased implementation will be used. Priorities are set upon three basic factors:

- ***feasibility*** – the difficulty of implementing the activity given available funding, skills, knowledge or other necessary components
- ***economic viability*** – the degree to which the activity provides economic benefits to members, and provides a return to the OWC that makes the activity self-supporting
- ***member interest*** – the level of interest among members to initiate and participate in the activity.

The selection and timing of activities to implement under this approach is contingent on the above factors.