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AN INVENTORY AND ANALYSIS OF BIOMASS UTILIZATION EFFORTS IN SOUTHWESTERN OREGON

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BACKGROUND

In 2003, Resource Innovations contracted with Josephine County to facilitate the development of the Josephine County Integrated Fire Plan (JCIFP). As part of this process, JCIFP partners formed sub-committees on fuels reduction and risk assessment to identify strategies to reduce wildfire risk throughout the County. One of the objectives identified by the committees was to explore opportunities to pay for hazardous fuels reduction projects via small diameter wood and biomass utilization. JCIFP partners felt this was especially important in light of continued agency budget cuts and diminishing grant funding. Subsequently, the County asked Resource Innovations to inventory other groups doing work on biomass utilization around southwestern Oregon, and to help JCIFP partners better understand the issues involved with such efforts.

This report aims to help communities and JCIFP partners by cataloguing and describing local efforts, presenting case studies of activities underway in other parts of Oregon and around the country, and providing recommendations on how to further proceed with woody biomass utilization efforts. The goal of this report is to assist partners and community members to make informed decisions about the types of uses to promote, potential groups to partner with, and other strategies for biomass utilization.

ORGANIZATION OF THE REPORT

This report is organized in four sections. Section One introduces the issues involved with biomass utilization, the different types and scales of utilization, and the most pertinent policies and reports. Section Two provides a summary of groups involved with biomass utilization in southwestern Oregon and presents findings from the analysis of those groups. Section Three discusses some of the implications of those findings and provides recommendations to JCIFP partners on possible next steps. Section Four presents case studies of efforts underway in other parts of the west that may be of significant interest to JCIFP partners and others interested utilizing biomass in the region.

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SECTION 1: INTRODUCTION

Connecting the JCIFP and Biomass Utilization

One of the most important objectives of any Community Wildfire Protection Plan (CWPP) is to reduce hazardous fuels that could potentially lead to a catastrophic wildfire. The Josephine County Integrated Fire Plan (JCIFP) calls for such mitigation through coordinated thinning and restoration operations in the most susceptible areas of the wildland-urban interface (WUI). These operations, however, do not come without a considerable price. Local fuels mitigation technicians and contractors estimate that the average cost of fuels treatments range between $500-$1500/acre, depending on such factors as transportation distance, density of fuels, treatment goals, and landscape characteristics.[1] Costs to reduce fuels in Josephine County can run even higher due to the vegetation types and steep terrain that is characteristic of the region.

Agencies and communities are therefore faced with a dilemma: How do you pay for needed hazardous fuels reduction, especially in light of constrained budgets and limited staff? A host of different, sometimes conflicting, parties are interested in this question. Some have been exploring the utilization of "biomass" (defined here as small-diameter timber and woody debris from fuels reduction projects) as a means to offset some of the costs of thinning. Thus far, however, attempts of this nature have not proven to be particularly successful. Local contractors, agencies, and even non-profit groups have discovered first-hand that it is very difficult to sell thinned materials for enough money to recoup the costs of the work. In some cases, they may not be able to sell those materials at all. Despite these setbacks, community members and agency officials remain committed to making hazardous fuels reduction affordable through biomass utilization.

Environmental, Economic, Social and Political Considerations

The potential consequences of a catastrophic wildfire are obvious: large-scale ecological damage, high financial costs associated with fire fighting and property loss, health effects from smoke and ash, and even loss of life. The various implications of biomass utilization, on the other hand, may not be so obvious yet will likely lead to more positive results.

In addition to leveraging forest restoration operations, thereby avoiding catastrophic ecological effects, biomass utilization may have the ability to accomplish a number of other societal goals. For one, it has potential to aid the southwestern Oregon economy, which has been hard-hit by the recent decline of the forest products industry. Lost jobs could be replaced by those created through the utilization of local resources generally considered waste. Businesses spurred by biomass utilization could cultivate wealth that will help support community services and facilities. And, by encouraging entrepreneurship from local citizens, biomass utilization may help communities avoid the "brain-drain" which can have such adverse effects on their economies.

Secondly, biomass utilization can have numerous positive social effects. Well-managed, "natural-looking" forest stands have potential to improve the aesthetic appeal of the forest and of WUI communities. And, while fuels reduction operations help to protect lives and property, the conventional practice of burning slash piles can pose serious health problems for residents of the area. Biomass utilization can give those piles alternative, less harmful, functions. Additionally, environmental groups and others interested in sustainable energy production have been looking at

[1] http://www.wsfpi.com/Docs/23%20%20USFS%20Stew%20Proj_cost-containment_12-04.pdf

ways to move away from dependence on non-renewable resources. And finally, the process of developing biomass utilization systems presents opportunities to build trust between differing groups, communities, and government.

The goal, as many see it, is to support small diameter and biomass utilization markets where they exist, and help create them where they do not. As these markets grow, and the demand for small diameter wood and biomass becomes greater, agencies and communities may be able to recoup at least a portion of the costs to implement the Josephine County Integrated Fire Plan and reduce fire danger around communities. Current conditions around southwest Oregon pose a significant threat to the health and livelihood of citizens, and to the forest ecosystem as a whole. As these issues are being discussed, hazardous fuels are accumulating, along with the risk of a catastrophic wildfire. As Bruce Lippke, Director of the Rural Technology Initiative at the University of Washington has stated, "*While the cost of acting may be high, the cost of doing nothing is greater.*"[2]

Types and Scales of Uses

There are many possible uses for biomass coming from fuels reduction projects. Levan-Green and Livingston (2001) have developed a model that classifies these uses into three types and provides examples of each type of use:

Traditional Uses	**Value-added uses**	**Residual Uses**
o Saw logs	o Flooring	o Biomass Energy
o Structural/ Non-Structural Lumber	o Paneling	o Ethanol
	o Cabinets	o Firewood
o Poles/posts	o Furniture	o Pulp Chips
o Pulp Chips	o Millwork	o Composting

There are other types of uses than those listed above (e.g. pharmaceutical, artwork, etc.) and some overlap between the different types of uses (e.g. pulp), but the above categories may help communities as they consider opportunities for biomass. Different uses require different sizes and grades of wood, as well as different kinds of processing. These factors need to be weighed for the potential social, economic, and environmental impacts they may have on the surrounding area.

In addition to the *types* of uses, communities must also consider the *scales* of businesses they are most interested in attracting. For instance, large-scale regional businesses require significant supply and tend to employ large numbers of people a single location. Small-scale businesses require less supply and may spread employment throughout the community though a more diversified market. Type and scale should be taken into account in any effort to enhance biomass utilization for communities in the region.

Relevant Federal Policies and Reports

The Rural Voices for Conservation Coalition, Biomass Working Group compiled some of the following descriptions of federal policies and reports related to biomass utilization in the spring of

[2] http://www.seattlepress.com/article-10307.html

2005. Any group or community interested in biomass utilization efforts and opportunities should be aware of these policies and their contents.

- The Departments of Interior, Energy, and Agriculture recently issued an *Interagency Memorandum of Understanding* 'On Policy Principles for Woody Biomass Utilization for Restoration and Fuels Treatments on Forests, Woodlands, & Rangelands' intended to develop and implement consistent and complimentary policies and procedures for Federal efficiency and effectiveness of woody biomass utilization.

- The *National Fire Plan* encourages biomass utilization: "Because much of the hazardous fuels in forests are excessive levels of forest-based biomass –dead, diseased and down trees – and small diameter trees, there are several benefits to finding economical uses for this material, including helping offset forest restoration cost; providing economic opportunities for rural, forest-dependent communities; reducing risks from catastrophic wildfires, protecting watersheds; helping restore forest resiliency, and protecting the environment." (p. 25)

- *The Biomass Research and Development Act of 2000 (Title 3 of the Agricultural Risk Protection Act of 2000, P.L. 106-224)* allows entities (including non-profits) to compete for federal grants and contracts associated with biomass research.

- *Section 9006 of the 2002 Farm Bill (P.L. 107-171)* authorizes federal grants and loans to farmers, ranchers, and rural businesses to purchase renewable energy systems, and section *9010* authorizes payments to producers of bioenergy (biodiesel or ethanol). The *FY2004 Farm Bill (P.L. 108-199)* appropriated $23 million to fund these provisions.

- *Section 201 of the Healthy Forests Restoration Act of 2003 (P.L. 108-148)* expands the scope of these grants to include research on thinning, harvesting, transportation, pricing, and curricula development. *Section 203 of HFRA* authorizes grants to owners and operators of biomass facilities, including wood-based facilities, and authorizes funds to this end. Most recently, $4.4 million has been authorized for grants to 'improve utilization and create markets for small-diameter material and low-value trees removed from hazardous fuel reduction activities on National Forest lands.'

- *American Jobs Creation Act of 2004 (P.L. 108-357, H.R. 4520)* expands the renewable energy production tax credit (extended earlier by *P.L. 108-311)* to include a half-credit over five years for open-loop biomass.

- The May 2005 GAO report to the House Committee on Resources entitled "*Federal Agencies Are Engaged in Various Efforts to Promote the Utilization of Woody Biomass, but Significant Obstacles to Its Use Remain*" documents the activities of federal agencies in regards to biomass utilization, their perceived effectiveness, the opportunities for and challenges to biomass utilization. The report cites the difficulty in using woody biomass cost-effectively and the lack of a reliable

supply of the material as being major obstacles to utilization. The report also covers officials' views on subsidies and tax credits for biomass utilization. The report concludes with the GAO recommending that the Secretary of Agriculture direct the Chief of the Forest Service to appoint an official who would be responsible for overseeing the agency's biomass activities.

- The *Energy Policy Act of 2005* authorizes the investment of up to $20 per green ton for companies that produce or purchase forest biomass as well as grants up to $500 million towards the construction of new biomass facilities. On the tax side, the bill provides a two-year extension, until Jan. 1, 2008, for facilities to qualify and expands the biomass tax credit from five years to 10. The Agriculture and Interior departments must report to Congress on the progress of the grant programs and biomass production by October 2010.

SECTION 2: INVENTORY AND ANALYSIS

Methodology

Resource Innovations created and distributed a questionnaire and conducted interviews with representatives of groups actively doing work on biomass utilization, as suggested by JCIFP partners and others.. Resource Innovations used the Internet and existing documents to research additional information on the activities of these groups. Resource Innovations also selected case studies from around the West to illustrate diverse efforts related to biomass and small diameter utilization. These case studies are included in the final section of this report.

Matrix

The matrix on the following page summarizes six groups interviewed through this process and illustrates the primary interests and activities of those groups as they relate to biomass utilization issues in southwest Oregon. The groups include:

- Lomakatsi Restoration Group
- Sustainable Northwest
- Jefferson Sustainable Development Initiative
- Southwest Oregon RC&D
- Applegate Partnership
- Southern Oregon Collaborative Small Diameter Group

JCIFP partners and others interested in utilization in southwest Oregon can use this information as they seek to establish partnerships and cultivate resources related to biomass utilization. More complete descriptions of each group can be found in the inventory attached as Appendix A.

Note: This is not intended to be a complete listing of all the organizations working on biomass utilization in southwestern Oregon. Instead, we focused on groups collaborating on biomass issues, working to promote it, or helping the public better understand the issues that surround it. There may also be other groups that we did not identify but are working on similar issues. This report, for example, does not include private businesses or for-profit contractors actively utilizing small-diameter wood. The Southwest Oregon Resource and Conservation Development Council is in the process of creating a resource directory that comprehensively lists all businesses and contractors doing such work in southwestern Oregon, and that document will be made public soon.

Groups Interested in Small Diameter Wood/Biomass Utilization in Southwestern Oregon

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	Goals/Interests	Activities	Uses/Scales Emphasized	Partners	Accomplishments	Barriers/Challenges Identified
Southern Oregon Collaborative Small Diameter Group (Knitting Circle)	Integrated environmental, economic, and social goals. Concerned primarily with supply side.	• Meetings to identify common ground among interested parties	Current focus on supply side; emphasis will be on primary use/ greatest value before residual	Environmental groups, federal agencies, university, industry	• Charter • Collaboration with environmental groups • Possible Jackson Co. point group for biomass issues.	• Making a profit. • Agency willingness to do larger scale projects
Jefferson Sustainable Development Initiative	Enhancing forest health and provide regional employment by identifying best value markets for products	• Boaz Project: assessing harvest/ sale of products. • Assistance with RC&D Resource Directory and SNW inventories	• Saw logs • Chips • Post and pole • Economizer	SNW, SW RC&D, Watershed Research and Training Center, Knitting Circle, landowners	• Nearly completed harvest and sales • Saw logs do well • Economizer breaks even?	• Chips are currently losing money • Post and pole and firewood also losing some money
Lomakatsi Restoration Group	To model ecological restoration and uses of small diameter materials in a grassroots fashion	• Penny Stew Restoration: assessing harvest/sale of small-diameter materials	• Post and poles • Milled materials • Some value-added flooring in future	BLM, Cascade Wildlands Inc., Watershed Research and Training Center	• 40 acres complete • 60 to be done in fall • Residents buying local materials • 3 weeks of work for 7-10 people	• Post and pole not currently profitable • No start-up money • Hard to compete with big industry • Wary of goods-for-services contracts
Applegate Partnership	Integrated environmental, economic, social goals.	• Pursuing feasibility study for biomass energy plant in the Applegate	• Biomass energy • Utilization of non-merchantable material • Fuels for Schools.	Local, state, federal agencies, environmental groups, citizens, fire districts, SOTIA	• High capacity/ enthusiasm, • Agency support, • Grants for biomass energy feasibility study	• Supply issues • Availability of land for facilities • Political tensions
Sustainable Northwest (Healthy Forests Healthy Communities)	Even balance of environmental and economic sides. Some consideration of social issues.	• Provide support for underutilized materials (throughout NW • Market analysis/ clearinghouse for biomass util. in SW OR.	"Every log to its highest potential value/use." • Custom sawing • Firewood • Molding • Biomass energy	Wood products manufacturers, SW OR RC&D, small woodlands owners, environmental groups	• Integrated Wood Utilization Model; • Supply analysis • Resource Directory • Balance of industry and environmental reps	• Environmental groups see efforts as economically motivated • Industry sees them as environmentally motivated.
Southwest Oregon RC&D	To reduce wildfire danger and encourage stewardship by private landowners by making it economically viable	• Wood Products Center/ Clearinghouse • Researching local level projects like Fuels for Schools	• Small scale/local markets minimizing transportation and based off SNW's recommendations	Local/state governments, local businesses and landowners, SNW, JSDI, OSU?,	• SNW documents • Bringing local businesses and landowners to table • Some new businesses have emerged	• Individual landowners unlikely to profit • Transportation costs • Supply side for large-scale utilization • Markets for small-scale utilization

Findings

The following findings are derived from interviews and additional research on biomass utilization efforts in southwestern Oregon. Findings are organized into six categories which align with categories represented in the matrix.

1. PRIMARY GOALS/INTERESTS

1.1 Integrated environmental, economic, and social perspectives are driving many biomass utilization efforts.

Nearly all those interviewed expressed interest in accomplishing a variety of goals. These goals include ensuring fire protection, reducing overstocked forest stands, and bolstering local economies, among others. All groups interviewed note the value of integrating these perspectives into their activities.

1.2 Groups want sound ecological research, not economic interests, to drive forest management decisions.

Some respondents want to be sure that future demand for biomass will not adversely affect forest health. They are concerned that land management agencies and others could one day be pressured into providing supplies of biomass commensurate with demand, thereby counteracting restoration efforts.

1.3 Most groups have focused on the market side of biomass utilization; few groups are actively working on the supply side.

Almost all of the groups interviewed are involved with activities that are oriented towards creating or improving markets for biomass. These activities include identifying best value markets for products, pursuing feasibility of a biomass energy plant in the Applegate watershed, and creating a market analysis/clearinghouse for biomass utilization in the area. Only one group expressed that its primary interest was with ensuring that there is an ample supply of biomass extracted from surrounding forests to encourage entrepreneurship and support existing businesses. Sustainable Northwest has also analyzed supply based on species and volume.

2. ACTIVITIES

2.1 Groups are involved in a range of activities, including collaboration, assessing technical and financial feasibility, and creating educational resources.

Some groups are facilitating discussions about biomass utilization. Two groups are actively assessing the technical and economic feasibility of fuels reduction and utilization by engaging in actual stewardship contracts, selling materials, and documenting their findings. Others produce and distribute materials and resources to educate private landowners of options they have for utilizing the woody biomass coming off their lands.

2.2 There are a limited number of feasibility studies related to biomass utilization facilities currently underway.

One organization in the process of pursuing a feasibility study for a biomass-to-energy plant in the Applegate Watershed, to be fueled by chips. Two other groups have been assessing the feasibility of small-wood processing operations on a relatively small scale. No other groups are currently conducting studies on any larger-scale operations.

3. USES/SCALES EMPHASIZED

3.1 Groups are researching a variety of potential uses for biomass.

Of those looking into particular types of biomass use, groups are most interested in traditional or primary uses of materials (e.g. saw logs), both from an economic and efficient-use perspective. However, realizing that other uses may provide other potential economic value, groups are looking into a host of value-added and residual wood products. Such products include molding, firewood, and chips, among others.

3.2 Groups are primarily interested in local, small-scale businesses rather than larger "corporate" businesses.

Most people interviewed indicated that a variety of smaller businesses could make communities less prone to potential supply problems or market fluctuations, compared to larger businesses focusing on just one type of use. They also tie this to the idea of ecological sustainability by suggesting that corporate interests could have greater influence over land-use management decisions.

4. PARTNERS

4.1 Groups are still working to create collaborative processes by involving a diverse mix of community organizations, public agencies, businesses, and environmental groups.

None of the groups have yet matched participation of all interest groups (environmental groups, business and industry groups, community members, agency members, etc.) on a regional level. Some groups do have strong representation by environmental groups; others by business and industry groups; and some have diverse representation, but from a very localized level.

4.2 There are other organizations and businesses that could be more actively engaged in collaborative efforts.

There is an opportunity to further engage organizations such as the Southern Oregon Regional Economic Development Initiative and other local organizations that have not yet been a part of the dialogue on biomass utilization. The Forest Service is another important player that has shown limited ability to dedicate staff to this issue. Local mill owners could also be invited to participate in these efforts.

5. ACCOMPLISHMENTS

5.1 Groups have produced, or are in the process of producing, several documents pertaining to biomass utilization.

Appendix B includes a list of documents available in the region on supply studies, directories of businesses working with small diameter wood/biomass, and visual integration models for potential businesses, among others.

5.2 Some groups are finding profit in saw logs and potentially the use of an Economizer.

According to the preliminary findings of the two groups assessing feasibility of selling thinned materials, small-diameter saw logs produced a profit greater than the cost to extract and transport them. The use of an Economizer may have also resulted in a small profit. Final reports are due at the end of 2005 documenting these findings.

6. BARRIERS/CHALLENGES IDENTIFIED

6.1 Without guarantees of supply, businesses are less likely to invest start-up capital.

Potential investors have been hesitant about starting up businesses because there is no guarantee of supply of biomass into the foreseeable future. According to groups interviewed, land management agencies that could provide that guarantee through large-scale fuels reduction contracts are either unable to because of financial constraints or reluctant because of potential litigation on large contracts.

6.2 Transportation costs make biomass utilization very costly.

There are high transportation costs associated with getting the material out of the forest. Recent hikes in gas and oil rates make the job even more expensive to run chainsaws, mechanical thinners, and to drive trucks to sites to load and unload material. Insurance rates also increase these costs.

6.3 Groups have found that chips are worth very little.

According to groups assessing the technical and financial feasibility of biomass utilization, chips currently have little to no market value. Those interviewed speculate that this may have something to do with ample supplies of chip material from other parts of the state. Wood waste is being shipped to southwest Oregon by housing manufacturers and municipalities where shipping the material costs less than dumping it into landfills that will eventually need to be shut, maintained, and replaced. Much of this wood waste is being used to fuel a biomass energy plant in the area at very little cost to the plant.

SECTION 3: DISCUSSION AND RECOMMENDATIONS

Discussion

There are several efforts related to biomass utilization underway in southwest Oregon, and yet there are still only a fraction of businesses processing small-diameter and biomass materials. Groups in the area recognize and are addressing potential environmental, economic, and social benefits that biomass utilization may present to the region. Currently, these groups are addressing the issue in a variety of ways—presenting multiple opportunities for JCIFP partners.

Up to now, the focus of local and regional efforts has largely been on the market side. However, as other reports and the groups themselves have suggested, potential businesses will be reluctant to invest without a reliable supply of materials. Guaranteeing that supply will be the greatest challenge for communities interested in cultivating biomass utilization industries into the future. Most groups looking into biomass utilization are also willing to support a diverse array of industries, but are wary of focusing efforts on any one type of use or letting any one industry monopolize potential supplies. The demonstrated success of certain traditional uses is promising. However, the only feasibility study actively being pursued in southwestern Oregon is for residual use of biomass for power generation.

On the collaborative side, groups have engaged numerous interests from the business community, environmental groups, and agency officials. There is, however, ample opportunity to bring those interests to the same table at a regional level. Involving these interests right from the start is key to long-term consensus and collaboration. Stakeholders not yet involved with these efforts could prove will be indispensable to strengthening both the market and supply side efforts.

Numerous federal policy incentives and attention have been given recently towards biomass utilization. Several important studies, including those referenced in Appendix B, have also come out of the activities of southwestern Oregon groups. Josephine County may be able to use these incentives and information to address the key challenges to biomass utilization that the groups have identified.

Recommendations

The following are recommendations to JCIFP partners on ways they may be able to further their progress with biomass utilization, strengthen connections, and maximize their resources.

1. **Explore options, such as the Coordinated Resource Offering Protocol (CROP)[3], to quantify the potential amount of hazardous fuels that will be available for future utilization in southwestern Oregon.** Other communities that have implemented CROP (e.g. central Oregon, eastern Arizona) have made significant progress in securing funding and contracting authorities. Such an analysis for southwestern Oregon may assist the region in securing grants and will provide valuable information that all groups can use. Reliable supply information will also help ensure that communities do not create expectations for markets that will not be ecologically sustainable in the long-run.

[3] See Case Study # 2 for more information on CROP.

2. **Continue to engage in efforts to secure a guaranteed supply of biomass materials from local forests.** Without such a guarantee, businesses may be less inclined to invest significant amounts of capital towards utilization of the available biomass. The Southern Oregon Collaborative Small Diameter Group (the Knitting Circle) has been actively addressing supply-oriented issues. Some JCIFP partners are involved with this effort and could provide more of a link between the Knitting Circle's activities and the JCIFP Fuels/Risk Committee.

3. **Consider the timeframe and scale of stewardship contracts that will provide the greatest opportunity for profit and investment.** The timeframe and scale of individual contracts may be just as important as the overall size of the project to prospective contractors/businesses.

4. **Continue reaching out to environmental and community groups in an effort to forge greater consensus regarding the need for hazardous fuels reduction projects and the mechanisms by which to finance and implement them.** Bringing light to environmental, economic and social benefits of hazardous fuels reduction and biomass utilization can build consensus and support for such projects.

5. **Continue to engage in efforts to create/bolster markets and business opportunities in the region**. The Southwest Oregon RC&D has created an extensive network of contacts within the business community and has produced numerous documents related to the business opportunities in the region. These networks and information can be tapped to encourage investment to coincide with future offers of guaranteed supply.

6. **Create a clearinghouse of information related to the benefits from and opportunities for fuels reduction and biomass utilization.** There is significant scientific information that has been produced locally and nationally on forest restoration, as well as numerous documents detailing biomass utilization efforts. This information may well assist collaborative efforts in the future.

7. **Pursue or support funding for feasibility studies of possible operations in the region.** Despite the extensive interest, there are limited numbers of feasibility studies currently being conducted. Traditional uses such as saw logs have shown particular promise for profitability, however no groups have yet sponsored a study for the installation of such a mill or modification of existing mills.

8. **Identify ways to support a Fuels For Schools program similar to that in Forest Service Regions 1 & 4.** This program has proven to be incredibly successful on the local level by reducing energy costs for rural communities and could be equally, if not more, successful in the densely wooded WUI communities of southwestern Oregon—especially as the availability of oil and gas continues to dwindle and prices continue to rise.

9. **Include the perspectives and assistance of organizations such as the Southern Oregon Regional Economic Development Initiative (SOREDI) and the Forest Service, as well as local mill owners, who have not yet been actively engaged in local discussions regarding biomass utilization.**

10. **Sponsor or support forums that will bring the various groups interested in biomass utilization together.** Information sharing happens well in organized environments. A local conference on local biomass utilization opportunities could help groups share knowledge and on-going activities. Likewise, Josephine County Integrated Fire Plan partners have an opportunity to engage with existing groups discussed in this report to identify and pursue local opportunities.

SECTION 4: CASE STUDIES OF OTHER BIOMASS UTILIZATION EFFORTS

CASE STUDY #1

Watershed Research & Training Center: Hayfork Biomass Utilization and Value-Added Model for Rural Development—Hayfork, CA

What is the Hayfork Biomass Utilization and Value-Added Model for Rural Development?

The Watershed Research and Training Center (WRTC) is in the implementation phase of an innovative biomass utilization facility that will include development of stewardship contracts for public lands fuels reduction, a log sort yard, a small log processor, a post and pole operation, a value-added incubator and industrial park, and a wood-fired electrical generation plant.

What stage are they currently at with the project?

Having already successfully completed a business incubator pilot study, WRTC is in the process of making an option to redevelop one of two abandoned mill sites in Hayfork. Once this 40-acre property is purchased, WRTC intends to refurbish an old building on the site that will house a value-added operation drying and selling boards and building produce fixtures. WRTC also plans to relocate its offices to the facility and locate its small-wood economizer and post and pole processor. The final phase of the project will be the location of a 5MW biomass-to-energy gasification plant on the site.

How have local, state, or federal governments assisted the project?

WRTC received a $503,400 grant from the Biomass Research and Development Initiative through the Department of Energy and NRCS. Much of this money has been used towards upgrading in-feeds and out-feeds for their small-log and post and pole processors. The Trinity County Firesafe Council has also supported the project through the adoption of the Firesafe Plan, by donating the land on which WRTC demonstrated their business incubator, and through economic development block grants awarded to the organization.

How is small-diameter wood used at WRTC?

Small-diameter logs are stored in their sort yard and processed in a small-wood economizer, post and pole operation, and various value-added businesses. WRTC also hopes to arrange a system where they can have some of their larger small-diameter wood processed at other mills and those mills can send them the tops of larger-diameter trees to be processed at the WRTC site.

How will biomass be used at WRTC?

Biomass will be used to fuel the 5MW gasification plant being built on the site. The plant is a European model that will cost more initially but should provide a long-term advantage through minimized water consumption and less labor intensity. WRTC, as part of the local PUD, has the ability to buy power to run their own operations at wholesale cost and sell the power they generate back to the grid at a profit.

Where will WRTC get its small-diameter/biomass supply?

WRTC plans to receive its supply from local stewardship contracts, other fuels reduction operations, and residues from mills and businesses.

What lessons have been learned by WRTC throughout the process, in regards to biomass utilization?

- Guaranteed supply of small-diameter wood is the number one challenge to the viability of the operation.
- The markets, equipment and workforce do not pose a dilemma for the organization.
- They have been successful in encouraging the Forest Service to offer stewardship contracts.
- The value-added businesses at the incubator site have done well and are able to collocate to their new location.

For more information, contact:

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Note: Continental Resource Solutions, the company that is installing the 5MW power plant at the WRTC site, is also creating a similar biomass utilization and value-added model in Beaver, OR. They have purchased a mill site without any grant funding and have been leasing out space to two businesses making products for log home pieces and another for modular homes.

CASE STUDY #2

Warm Springs Forest Products Industries (WSFPI) Biomass to Energy Project—Warm Springs, OR

What is the project?

Warm Springs Forest Product Industries (WSFPI) seeks to develop a new 15.5 MW co-generation facility that will supply steam and power for the Tribes' sawmill. Excess power will be sold to a willing purchaser under a long-term contract.

The new facility will require 160,000 bone dry tons (BDT) or approximately 12,500 truckloads of biomass fuel power per year. WSFPI estimates that half of the biomass will come from reservation-controlled sources such as mill waste and hazardous fuels reduction projects, as well as clean urban wood waste that will be transported from the Portland area. The other half of biomass fuel will come from off-reservation sources, requiring 8,000 acres of material assuming 10 BDT per acre. As part of the project, WSFPI will also modify current sawmill configurations to efficiently and cost effectively process small logs (5-7 inches diameter inside bark). The total estimated capital cost to construct the biomass facility is $30 million. The Tribe initiated the project in 2002 and is currently in Phase One of Three, which entails updating the boiler that is expected to be online in October 2005.

What are the major goals of the project?

Some of the major goals of the project include: the reduction of hazardous fuels on and off the reservation; the protection of tribal assets; increased efficiency at the sawmill; the contribution of power to the grid; the creation of employment opportunities on and off reservation; ecosystem restoration through biomass thinning; and the utilization of existing stewardship contracting through Healthy Forest/Tribal Forest Protection Act authorities.

Who is involved in the project?

At the local level, WSFPI and the Tribal council set up an Energy Development Team that consists of tribal enterprise leaders of three Warm Springs companies, the Tribal secretary, a Tribal attorney, and natural resources General Manager. The Team is developing a renewable energy portfolio strategy for the Tribe. On a larger scale, the Bureau of Land Management (BLM), Forest Service, State, Central Oregon Intergovernmental Council, and a variety of consultants have been involved in the process.

Coordinated Resource Offering Protocol (CROP)

The CROP pilot project aims to "level" supply within the community supply landscapes of Central Oregon, providing greater certainty about where and when supply will become available. The CROP pilot will work to coordinate projected resource offerings among Districts on a Forest, among Forests in a region, and among Forests and other land management agencies within the community supply landscape. This landscape level programmatic resource planning will provide potential investors with detailed information about the volume, diameter, and species of future supply, and will initiate a system of communication and coordination of supply offerings among and between administrative units.

What are the major funding sources?

The biomass project was designated as a Bureau of Indian Affairs (BIA) Demonstration Pilot project in October 2004. The BIA awarded $196,735 for a due-diligence study of the project. Other significant funding sources include Tribal government, USDA Forest Service, and Oregon Department of Energy. Other financing mechanisms and potential tax credits through partners also play a role in acquiring adequate funding for the project. Grant applications to the Oregon Climate Trust and the Oregon Energy Trust have been submitted for project financing. In May 2005, the USDA awarded a $250,000 grant to Warm Springs Forest Products Industries supporting Phase II of the project, which entails replacing the existing condensing turbine with an extraction turbine increasing power generation by 6 MW.

What is/will be the economic impact of the project on the reservation?

This project will add 50 to 70 jobs (mostly in the woods – harvesting, collecting, processing, and transporting biomass fuel) to the reservation economy. Approximately 4.9 jobs per mW produced. And the plant will provide energy for the mill operations.

What have been/will be some challenges to the project?

- The biggest challenge is having the agencies feel comfortable with the project and ensuring that promises are fulfilled;
- Reticence from industry partners makes moving forward with the project (with agreements, etc.) difficult; and
- The administration's lack of support of renewable energy makes cost efficiency difficult.

Lessons learned and recommendations to other communities interested in such a project:

- It is important to form a team to see if pursuing such a project makes sense; if it does, hire experts to do an assessment of supply and existing opportunities. A strategy should be designed to address the need of jobs, profit, and forest restoration.
- Make contact with array of interested parties such as conservation groups, local community groups and industry. There are sufficient benefits of increased fire resiliency, jobs, small log supply and support for ecological restoration to satisfy many interests.

For more information, contact:

Warm Springs Forest Products Industries
Larry Potts, General Manager,
lpotts@wsfpi.com
Cal Mukumoto, Consultant
541.553.1131 (main office)
http://www.wsfpi.com

CASE STUDY #3

Pyramid Mountain Lumber—Seeley Lake, MT

What is Pyramid Mountain Lumber?

Pyramid Mountain Lumber (PML) is a family-owned lumber mill and logging operation located in northwestern Montana. Founded in 1948, the company has experienced both boom and gloom times experienced by the rest of the timber industry. In 2000, when PML announced plans to close due to financial problems, the community and county, state and federal government stepped in to help keep the business running. Today, the company employs approximately 150 employees and is an active participant in stewardship contracting efforts to improve forest health around the region.

How is small-diameter wood and/or biomass used at PML?

Though no small diameter wood is actually processed at the Pyramid mill, it is sold to nearby Tricon Lumber where it is processed into merchantable material. PML obtains the small diameter wood through stewardship contracts with the Forest Service, as well as other operations on private lands.

Under some contracts, PML hires sub-contractors to chip up slash material where it lay in the forest. PML then sells the chips as pulp to a local packaging and container company. PML also utilizes hog fuel to run steam for their dryers. Officials there have expressed interest in producing energy from biomass to run their facilities. The Forest Service and PML have done estimates of the amount of material near the mill and have determined that there is enough to power a co-generation plant. No funds have yet been dedicated towards construction.

How have local, state, or federal governments assisted PML?

PML has received approximately $4.6 million in grants, low-interest bank loans, and credit lines through a package arranged by the Missoula Area Economic Development Corporation (MAEDC). This contribution has helped PML to purchase state-of-the-art computerized equipment that has increased overall production efficiency. The company has also received an Economic Action Program grant of nearly $39,000 through the Forest Service's Northern Region, State and Private Forestry Division, and the Montana Department of Commerce to help with training on the new equipment.

What lessons has PML learned in regards to small diameter wood/biomass utilization?

- There are opportunities for making small diameter wood utilization work, however there are obstacles which make its realization difficult
- Barriers include no guarantee of supply, lack of existing markets, and uncertain capital support.

For more information, contact:

Larry Westcott or Gordy Sanders
P.O. Box 549
Seeley Lake, MT 59868
Phone: 406-677-2201 EX 34

CASE STUDY #4

Fuels for Schools Program—(MT, ID, WA, ND, SD, NV, UT)

What is the Fuels For Schools (FFS) program?

FFS is an innovative program that helps to finance retrofits of heating systems in public schools and other facilities to burn wood waste in the form of chips from hazardous fuels reduction projects, local wood manufacturers and landfills. It is a cooperative venture between the USDA Forest Service Regions 1 & 4, five State Foresters, the Bitter Root RC&D, school districts, and private businesses.

Where is this program being implemented?

Currently, FFS is operating in Darby, Victor, and Philipsburg, Montana and in Ely, Nevada. Eight more projects have been funded and are in the process of being constructed. More than 80 facilities have completed engineering assessments.

How does the Fuels For Schools program work?

- ➔ Communities contact their state forester to arrange for an engineering assessment on their system.
- ➔ The FFS team funds/conducts an assessment of facilities and systems and prepares a written report on potential costs and savings.
- ➔ If the school board or other decision-makers decide to pursue the project, the FFS team may then provide support in the way of grants and/or technical assistance such as locating sources of fuel and contractors. If funding is not available, the team will assist the communities in locating potential funding sources.

What are some of the benefits of the program?

- Savings on heating costs can vary between 45-75% (or $10,000-$70,000/year) over the use of oil (slightly less for natural gas).
- Cleaner air—wood burned in a boiler creates significantly less pollution than that which is burned as slash or in wildfires
- Improved forest health/reduced fire danger through use of biomass
- Renewable domestic energy is emphasized over non-renewable fuels.
- Job creation.

What are some of the challenges of this program?

- Initial costs and locating funding
- Maintenance of system
- Relatively small impact on fire danger/fuels reduction—a fully-automated boiler only uses 300-500 tons of chips per year (the equivalent of approximately 50 acres of thinned material).

For more information, contact:

Dave Atkins
Economic Action Program Coordinator
Fuels For Schools
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Missoula, MT 59807
(406) 329-3134
e-mail: datkins@fs.fed.us

CASE STUDY #5

Biomass One—White City, OR

What is Biomass One?
Biomass One a privately-owned 25 MW co-generation facility that burns wood waste to create electricity and steam. The steam is sold locally for drying lumber and veneer. All electricity is sold to Pacific Power for distribution to their customers in the Rogue Valley. Biomass One currently produces enough power to satisfy the needs of over 20,000 homes.

Where does the wood waste come from?
Biomass One is contracted with communities near and far to purchase and receive their municipal wood waste. They also accept residues from wood products manufacturers.

How is small-diameter wood and/or biomass used at Biomass One?
Biomass One also accepts non-merchantable slash material from thinning operations on nearby forests. In some cases, Biomass One will provide their own tub grinders and transport of the chipped material to be used at their facility.

What is the current supply situation for wood waste at the facility?
Due to the current housing market and demand for wood products, supply is currently very high. Supply is also boosted by municipalities that recognize the cost to deliver wood waste to Biomass One is less than the cost to deposit the same material into landfills that will eventually need to be replaced.

What are the primary constraints for Biomass One taking more fuels reduction project materials or expanding its operations?

- The costs of chipping and transporting the material is high.
- There is no guarantee of supply from federal agencies.
- Biomass One is limited by contract to supplying a maximum of 25MW power.
- Huge initial investments are necessary to build other facilities.

For more information, contact:

Gordon Draper
Vice President-Operations
2350 Avenue G
White City, Oregon 97503
(541) 826-9422
gdraper@biomassone.com

APPENDIX A. INVENTORY OF GROUPS WORKING ON BIOMASS EFFORTS IN SOUTHWESTERN OREGON

Under development

APPENDIX B. SELECTED MATERIALS ON SOUTHERN OREGON BIOMASS UTILIZATION EFFORTS

Under development

APPENDIX C. GRANT RESOURCES

Biomass Grants

Woody Biomass Utilization Grants, USDA Forest Service	
Grant type	Biomass Grant
Potential for Funding	Funds are targeted to communities and tribal governments in order to turn residues from hazardous fuel reduction projects into marketable forest products and/or energy products.
Contact Information	Name: Shawn Lacina, Grants & Agreements Specialist, USDA Forest Service, Forest Products Laboratory, Woody Biomass Grants Program Address: 507 Highland Avenue, Madison, WI 53705-2398 For technical questions contact Susan L. LeVan-Green, Program Manager, Technology Marketing Unit, Forest Products Laboratory Phone: (608) 231-9504, E-mail: slevan@fs.fed.us Web site: http://www.fpl.fs.fed.us/tmu/grant/biomass-grant.html
Program mission/ focus	The grant program is intended to help improve utilization and create markets for small-diameter material and low-value trees removed from hazardous fuel reduction activities. Solutions that best address the nationwide challenge and program goals will receive higher consideration. The goals of the program are to: ▪ Help reduce management costs by increasing value of woody biomass and other forest products generated by hazardous fuel treatments. ▪ Create incentives and/or decrease business risk for increased use of woody biomass from National Forest lands (i.e., must include National Forest System lands but may also include other lands such as Bureau of Land Management, tribal, state, local, and private). ▪ Institute projects that target and help remove economic and market barriers in using small-diameter trees and woody biomass.
Program area	Woody Biomass Utilization Grants
Available grants	Submission of an application is required for the grants, which will not be less than $50,000 or more than $250,000 each.
Application deadline	See web site for updates
Eligibility requirements	These funds are targeted to help communities, entrepreneurs, and others (such as state, local, and tribal governments; school districts; non-profit organizations; businesses; companies, corporations, public utility districts; fire districts; conservation districts; ports) turn residues from hazardous fuel reduction projects into marketable forest products and/or energy products.
Application process	Submit a pre-application; see web site for further information.

Renewable Energy Systems and Energy Efficiency Improvements Grant, USDA	
Grant type	Biomass
Potential for Funding	Annual competition at national level. Application requirements can be complex, so consult with the USDA well in advance of deadlines.
Contact Information	Contact information depends on geography- see website Web site: http://www.rurdev.usda.gov/rbs/farmbill/apply.html
Program mission/ focus	To help fund renewable energy and energy efficiency projects in rural America. 5-year program to help farmers, ranchers and rural small businesses purchase renewable energy systems and make energy efficiency improvements.
Program area	Farm Bill Section 9006- Renewable Energy Systems and Energy Efficiency Improvements Grant, Guaranteed Loan, and Direct Loan Program
Available grants	To purchase renewable energy systems and make energy improvements for agricultural producers and rural small businesses.
Application deadline	Varies- see the web site for updated information.
Eligibility requirements	To receive a grant under this subpart, an applicant must meet each of the criteria, as applicable, as set forth in paragraphs (a) through (f) of this section. (a) The applicant or borrower must be an agricultural producer or rural small business; (b) Individuals must be citizens of the United States (U.S.) or reside in the U.S. after being legally admitted for permanent residence; (c) Entities must be at least 51 percent owned, directly or indirectly, by individuals who are either citizens of the U.S. or reside in the U.S. after being legally admitted for permanent residence; (d) If the applicant or borrower or an owner has an outstanding judgment obtained by the United States in a Federal Court (other than in the United States Tax Court), is delinquent in the payment of Federal income taxes, or is delinquent on a Federal debt, the applicant or borrower is not eligible to receive a grant or guaranteed loan until the judgment is paid in full or otherwise satisfied or the delinquency is resolved; (e) In the case of an applicant or borrower that is applying as a rural small business, the business headquarters must be in a rural area and the project to be funded also must be in a rural area (f) The applicant must have demonstrated financial need. Adverse actions made on applications are appealable pursuant to 7 CFR part 11. The grant request must not exceed 25 percent of the eligible project costs.
Application process (grant guidelines)	Separate applications must be submitted for renewable energy system and energy efficiency improvement projects. See web site for specific details. Annual competition at national level. Application requirements can be complex, so consult with USDA well in advance of deadlines.

Business Opportunity Grants

Rural Business Opportunity Grants, **USDA**	
Grant Type	Business
Potential for Funding	National-level grant competition. Funding is limited; grants tend to go to projects helping the neediest areas.
Contact Information	Contact information depends on geography Web site: http://www.rurdev.usda.gov/rbs/busp/rbog.htm
Program mission/ focus	The purpose is to promote sustainable economic development in rural communities with exceptional needs. This is accomplished by making grants to pay costs of providing economic planning for rural communities, technical assistance for rural businesses, or training for rural entrepreneurs or economic development officials.
Program area	Rural Business Opportunity Grants
Available grants	Projects eligible for RBOG funding compete based on certain grant selection criteria. Priority points are awarded to those projects that best meet these criteria and are ranked from the highest to the lowest scoring. The criteria includes the sustainability and quality of the economic activity expected; the amount of leveraging of other funds; economic conditions in the service area, and the project's usefulness as a new best practice. Applications are funded up to the maximum dollars that are available in any given funding cycle.
Application deadline	Varies; see web site for details
Eligibility requirements	To be eligible for a Rural Business Opportunity Grant (RBOG) applicants must be a public body, nonprofit corporation, Indian tribe, or cooperative with members that are primarily rural residents. You must have significant expertise in the activities you propose to carry out with the grant funds and financial strength to ensure you can accomplish the objectives of the proposed grant. You must be able to show that the funding will result in economic development of a rural area (which is defined as any area other than a city or town that has a population of greater than 50,000 inhabitants and the urbanized area contiguous and adjacent to such a cities or towns). Your project must include a basis for determining the success or failure of the project and assessing its impact.
Application process)	Applications may be filed with the Rural Development State Office in the State where the grant purposes will be carried out. First, obtain a copy of the program regulation (4284-G) and refer to the application section. A complete application must be filed before it will be scored. Additional information, copies of the regulations, and forms can be obtained by contacting any USDA Rural Development State Office. Check your telephone directory under "Federal Government" or visit the Rural Development Field Office web site to obtain local contact information: http://www.rurdev.usda.gov/recd_map.html and to obtain further information on this program. Application requirements are complex; it is recommended that applicants consult with their local or state office well in advance of the application.

Rural Business Enterprise Grants, USDA	
Grant type	Business
Potential for Funding	National-level grant competition. Funding is limited; grants tend to go to projects helping the neediest areas.
Contact Information	Contact information depends on geography Web site: http://www.rurdev.usda.gov/rbs/busp/rbeg.htm
Program mission/ focus	The Rural Business-Cooperative Service (RBS) makes grants under the Rural Business Enterprise Grants (RBEG) Program to public bodies, private nonprofit corporations, and Federally-recognized Indian Tribal groups to finance and facilitate development of small and emerging private business enterprises located in any area other than a city or town that has a population of greater than 50,000 inhabitants and the urbanized area contiguous and adjacent to such a city or town. The public bodies, private nonprofit corporations and federally recognized Indian tribes receive the grant to assist a business. GRANT FUNDS DO NOT GO DIRECTLY TO THE BUSINESS.
Program area	Rural Business Enterprise Grants
Available grants	Eligible uses for grant money are: Technical Assistance (providing assistance for marketing studies, feasibility studies, business plans, training etc.) to small and emerging businesses; purchasing machinery and equipment to lease to a small and emerging business; creating a revolving loan fund (providing partial funding as a loan to a small and emerging business for the purchase of equipment, working capital, or real estate); or construct a building for a business incubator for small and emerging businesses.
Application deadline	Varies; see web site for further details
Eligibility requirements	Eligibility is limited to public bodies, private nonprofit corporations, and Federally recognized Indian Tribal groups. Public bodies include incorporated towns and villages, boroughs, townships, counties, States, authorities, districts, Indian Tribes on Federal and State reservations, and other Federally-recognized Indian Tribal groups in rural areas. The small and emerging businesses to be assisted must have less than 50 new employees and less than $1 million in gross annual revenues.
Application process (grant guidelines)	Applicants are required to submit a pre-application with supporting data before a formal application is made. RBS will tentatively determine eligibility and funding priority score. The Agency will inform the applicants when to assemble and submit a formal application. Forms are available from and may be filed in any USDA Rural Development State Office, check your telephone directory under "Federal Government" or call the RBS National Office Specialty Lenders Division, (202) 720-1400. It is recommended that applicants discuss the proposed project and process with their local State or area office before completing the application.

Environment and Natural Resource Grants

Laura Jane Musser Fund	
Type	Environmental
Potential for Funding	Funding is specific to rural areas and environmental stewardship.
Contact Information	Name: Mary Karen Lynn-Klimenko, Managing Consultant Address: 332 Minnesota Street, Suite E-1420, St. Paul, MN 55101 Phone: 651-224-5209 Email: musser@visi.com Web site: http://www.musserfund.org/environmental.htm
Program mission/ focus	The fund proposes to assist public or not-for-profit entities to initiate or implement projects in rural areas to undertake consensus-based activities in environmental stewardship or dispute resolution. "Programs that work to manage resources (whether of ecological, economic or aesthetic values) are most effective when a broad range of community members and stakeholders are involved in both planning and implementation of the program. Moreover, involving local citizens in a hands-on grass-roots approach to stewardship can help to develop a common vision of the future and harness their energies to make that vision come true."
Program area	Initiative to Promote Collaborative Process in Environmental Decision Making- Environmental Stewardship Program
Available grants	The fund is most interested in new programs and is willing to fund the planning phase, or implementation. Grants may fund projects already in progress if the proposal is compelling. Grants of up to $35,000 may be made for projects in this program.
Application deadline	September 30, 2005
Eligibility requirements	Nonprofit 501(c)(3) organizations, organizations that are forming if sponsored by a 501(c)(3) organization, units of government at the federal, state or local level
Application process (grant guidelines)	Submit an application including: summary, background, goals and activities, community involvement, stakeholders, process, community impact, budget and outcomes.

Sand County Foundation	
Type	Environmental
Contact Information	Name: Kevin McAleese Address: 1955 Atwood Avenue, Ste. 2, P.O. Box 3186, Madison, WI 53704 Phone: 608-663-4605 x. 23 Fax: 608-663-4617 Email: kmcaleese@sandcounty.net Web site: http://www.sandcounty.net
Program mission/ focus	Sand County Foundation's Community Based Conservation Network is supporting citizen-led conservation initiatives. People take care of the things upon which their future depends. The Network builds upon this fundamental human instinct and seeks to broaden the set of conservation success stories that arise when rights and resources are aligned.
Program areas	Community Based Conservation Network (CBCN)
Available grants	The Sand County Foundation invites scholars, practitioners and landholder communities to test and assess innovative ways to overcome constraints associated with rights and resource value. CBCN grants are in the range of $10,000 - $20,000 to demonstrate and assess community-based natural resource management (CBNRM) innovations.
Application deadline	Check web site for further details.
Eligibility requirements	This invitation is extended to individuals or organizations working in CBNRM in North America or eastern and southern Africa. Underlying this invitation are two fundamental questions: * What motivates groups of people to come together to improve the manner in which they manage their land and natural resources? * How can land and natural resource use be improved to achieve both conservation and human well being?
Application process (grant guidelines)	Submit a summary proposal of no more than two pages that describes: 1) the proposed intervention in its environmental context; 2) the problem to be addressed; 3) the objectives of the intervention; 4) the activities to be undertaken; 5) a statement of what is new or different about the intervention; 6) methods for verifiable demonstration of the efficacy of the proposed innovation; and 7) budget. Those selected will be asked to submit full proposals.

Capacity-Building

Northwest Fund for the Environment	
Grant type	Capacity Building
Potential for Funding	Only organizations that have completed successful project grants with the NW Fund may apply for capacity-building grants.
Contact Information	Address: 1904 Third Ave., Suite 615 Seattle, WA 98101 Phone: 206-386-7220 Fax: 206-386-7223 E-mail: staff@nwfund.org Web site: http://www.nwfund.org/index.html
Program mission/ focus	The goal of the Capacity Building Program is to develop and increase the capacity of organizations to achieve their programmatic objectives in an effective, efficient and sustainable manner. Objectives ▪ Assist organizations in developing diverse and sustainable revenue sources. ▪ Develop and support strong leadership in the environmental community of Washington State. ▪ Improve the ability of organizations to communicate effectively with diverse audiences.
Program area	Capacity Building Program
Available grants	Grants for capacity building may include: ▪ Strategic planning and evaluation. ▪ Resource development projects, such as major donor recruitment and membership campaigns. ▪ Board and Staff development, such as workshops, training or retreats. ▪ Marketing and communication planning. Grants of up to $5,000 may be made for projects designed to meet a particular organizational development need within the period of 16 months or less.
Application deadline	One grant making cycle per year. The next deadline is February 2006.
Eligibility requirements	*Only organizations that have completed successful project grants with the NW Fund may apply for capacity building grants. Only projects that benefit Washington state are considered. Capacity Building grants are limited to organizations that are working in the program areas of Growth Management and Aquatic Ecosystem Protection.
Application process (grant guidelines)	Call the Northwest Fund office (206-386-7220) to discuss your project. If staff determines that your project meets our guidelines and criteria they will email you a Cover Sheet and guidelines for your Letter of Inquiry (LOI).

Northwest Area Foundation	
Grant type	Capacity Building
Potential for Funding	Assistance is directed at specific communities and is determined through foundation staff research and selection rather than unsolicited grant proposals.
Contact Information	Name: Heidi Grandstrand, Grants & Contracts Administrator Address: 60 Plato Boulevard E Suite 400 St. Paul, MN 55107 Phone: (651) 225-3893 E-mail: hgrandstrand@nwaf.org Web site: http://www.nwaf.org/default.aspx
Program mission/ focus	Reduction of long-term poverty. The foundation partners with select communities in Minnesota, Iowa, North Dakota, South Dakota, Montana, Idaho, Washington and Oregon, providing technical assistance and financial resources through our Ventures, Horizons, and Connections programs.
Program areas	*Ventures*- The Foundation provides technical assistance and financial resources to up to 12 communities for 10 years so that they may develop and implement sustainable strategies. Future partnerships may include American Indian reservations. *Horizons*- The Horizons program helps rural communities of fewer than 5,000 strengthen their leadership systems. It offers comprehensive community leadership programs and activities within communities that, in general, have experienced significant decline in population, income and resources. *Connections*- The Connections program works to research develop or find the products communities need to advance their poverty-reduction initiatives.
Available grants	The Foundation no longer accepts requests for grants. Rather than support individual institutions, they provide technical assistance and financial resources to help communities identify, share and advocate for strategies and tools with lasting impact.
Application deadline	n/a
Eligibility requirements	Assistance is directed at specific communities and is determined through foundation staff research. Selection is based on geography, need, opportunity and potential impact.
Application process	n/a

Economic Action Programs/Cooperative Programs, USDA Forest Service	
Grant type	Forestry/Capacity Building/Economic Development
Potential for Funding	Programs are targeted to benefit under-served and needy populations.
Contact Information	Specific contact person depends on geography Address: P.O. Box 3623, Portland, OR 97208 Phone: 503.808.2729 Fax: 503-808-2339 Web site: http://www.fs.fed.us/r6/coop/programs/rca/economic.htm
Program mission/ focus	The overall goal is to facilitate and foster sustainable natural resource management through partnerships with the private and public sectors as well as communities and tribes. Economic Action Programs include: Rural Community Assistance, Rural Development and The Northwest Forest Plan/Northwest Economic Adjustment Initiative
Available grants	A variety of community and economic development proposals can be funded. Proposals can range from requests to support community action plan development and other technical assistance, to project implementation requests from an existing action plan. Policy and Congressional direction focus funding to natural resource-based projects originating from local action plans that help communities diversify their economies.
Application deadline	Varies
Eligibility requirements	Communities, tribal governments, counties, municipalities, and not-for-profits with an economic development mission in areas dependent on forests and natural resources and: ▪ Community is within 100 miles of a National Forest ▪ Population is 10,000 people or less/county population is less than 22,550. ▪ At least 15% of the total primary and secondary labor and proprietor income is derived from wood products and forest-related industries such as recreation and tourism. ▪ Community is economically disadvantaged as a result of Federal or private sector land management practices.
Application process (grant guidelines)	Varies by program. See website for guidelines/regional contacts.