W. 3. B. 2.

ABBREVIATED CONSENT CALENDAR FORMAT

Memorandum Date: August 15, 2007
Order Date: August 29, 2007

TO: Board of County Commissioners

DEPARTMENT: County Administration- Community & Economic Development

PRESENTED BY: Mike McKenzie-Bahr

AGENDA ITEM TITLE: ORDER/IN THE MATTER OF ACCEPTING A $95,000 COOPERATIVE FORESTRY ASSISTANCE GRANT FROM THE USDA FOREST SERVICE AND AUTHORIZING THE COUNTY ADMINISTRATOR TO SIGN THE GRANT AGREEMENT

I. MOTION

Move to accept the Forest Service grant and authorize the County Administrator to sign the grant agreement.

II. DISCUSSION

A. Background / Analysis

Approving the above motion would result in the County accepting a $95,000 grant from the USDA Forest Service. The grant funds will be used to study the availability of woody biomass for use to create biofuels in Lane County, and to hold meetings with businesses and the public to discuss opportunities and concerns with using woody biomass.

The four focus areas of the grant are:

1) Woody biomass resource assessment to determine feedstock availability, price, and location, and transportation challenges;
2) Education and outreach to increase public understanding;
3) Assessing forest biomass processing capacity; and
4) Strengthening forest biomass business capacity through training and skill development.

The grants funds will be used to accomplish the above by contracting out project elements to the project partners:

- Northwest Cooperative Development Center
- Oregon Environmental Council
- Lane MicroBusiness
- Lane Community College Business Development Center
- Mater Engineering
- University of Oregon Resource Innovations

The end products of this grant: will include:
1) Biomass flow analysis - An update of the 2005 Coordinated Resources Offering Protocol (CROP) study for two additional years, that identifies potential woody biomass in Lane County.
2) Education forums for members of public, business and public agencies to discuss biomass potential and concerns. It is anticipated that this element would include a policy brought to the Board of Commissioners regarding support of biofuels projects that use woody biomass in a sustainable manner that does not harm forest lands.
3) A report that will assess the relevant strengths and the weaknesses of local contracting capacity related to biomass utilization.
4) Outreach and training to small businesses located in rural areas that may want to develop businesses around woody biomass collection.

All of the match required by the grant is being provided by the project partners. The county will receive $7,500 from the grant to administer the project and pay for project related expenses. This is a non-construction project.

B. Recommendation

There is a lot of discussion regarding the opportunity for biofuels in Oregon based on local non-food resources. This grant will help determine if there is a readily available woody biomass and business to undertake the collection and trucking of said biomass. In addition it includes a community outreach element to get concerns from the public about biomass use.

The Lane County Community & Economic Development Coordinator recommends the Board of Commissioners approve the motion to accept the grant so the studies and outreach can occur.

III. ATTACHMENTS

1: Board Order
2: Grant Application Narrative: Multi-collaborative effort to utilize woody biomass for cellulosic ethanol developments in Western Oregon

IN THE BOARD OF COUNTY COMMISSIONERS OF LANE COUNTY, OREGON

ORDER NO.

) ORDER IN THE MATTER OF
) ACCEPTING A $95,000 COOPERATIVE
) FORESTRY ASSISTANCE GRANT
) FROM THE USDA FOREST SERVICE AND AUTHORIZING THE COUNTY ADMINSTRATOR TO SIGN THE GRANT AGREEMENT

WHEREAS, the Lane County Board of Commissioners has adopted the goal of supporting programs that work for a strong regional economy to expand the number of family-wage jobs available in Lane County and provide opportunities for citizen participation in decision-making and community involvement, and

WHEREAS, the United States Department of Agriculture Forest Service has created the Forestry Assistance Grant to encourage local partnerships that examine ways to create job opportunities from public resources, and

WHEREAS, the USDA Forest Service has notified Lane County it has awarded $95,000 to a collaborative project involving Lane County, Northwest Cooperative Development Center, Oregon Environmental Council, Lane MicroBusiness, Lane Community College Business Development Center, Mater Engineering, University of Oregon Resource Innovations to examine the opportunity for woody biomass use, including citizen input,

NOW THEREFORE, IT IS HEREBY ORDERED THAT: the Lane County Board of Commissioners approves accepting a $95,000 cooperative forestry assistance grant from the USDA Forest Service and authorizes the County Administrator to sign the grant agreement documents.

DATED this 29th day of August, 2007.

Faye Stewart, Chair
Lane County Board of Commissioners

APPROVED AS TO FORM
Date 8/21/07 Lane County
OFFICE OF LEGAL COUNSEL

Multi-collaborative effort to utilize woody biomass for cellulosic ethanol development in western Oregon

Submitted for

National Forest Restoration Working Partnership Grant

By

Lane County Government (Lead applicant)
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Resource Innovations, University of Oregon
Oregon Environmental Council
Lane Community College Business Development Center
Lane MicroBusiness
Northwest Cooperative Development Center
Mater Engineering
Trillium Biofuels

July 10, 2007

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National Forest Restoration Working Partnership Grant

Project Summary

Lane County, Oregon is requesting funds through the National Forest Restoration Working Partnership Grant to help jump-start a multi-party collaborative initiative to attract grants, equity, and debt to help build a cellulosic ethanol industry in western Oregon. Our mission is to "Think Globally and Act Locally" and to build on the vision of the United States government to explore opportunities for biomass utilization and renewable transportation fuels. With funding from the USDA Forest Service, this project will develop a path to process and utilize 50,000 green tons of woody biomass to produce two million gallons of cellulosic ethanol on public and private forestlands in western Oregon.

This $124,000 project proposes four integrated components:

- Woody biomass resource assessment to determine feedstock availability, price, and location, and transportation challenges;
- Education and outreach to increase public understanding;
- Assessing forest biomass processing capacity; and
- Strengthening forest biomass business capacity through training and skill development.

Outcomes from this project may be replicated and scaled up to landscape-scale forest restoration projects throughout the West.

PROJECT NARRATIVE

Statement of Need

In his 2006 State of the Union address, President George Bush outlined the new Advanced Energy Initiative (AEI) to help overcome America's dependence on foreign sources of energy. As part of the Advanced Energy Initiative, the US Department of Energy's Breaking the Barriers to Cellulosic Ethanol report (June 2006) stated, *"The triple energy-related challenges of the 21st Century are economic and energy growth, energy security, and climate protection. The United States imports about 60% of the petroleum it consumes, and that dependency is increasing."*

The U.S. Department of Energy (USDOE) and the U.S. Department of Agriculture (USDA) are strongly committed to expanding the role of biomass as an energy source. The Biomass Research and Development Technical Advisory Committee, a panel established by the Congress to guide the future direction of federally funded biomass R&D, envisioned a 30 percent replacement of the current U.S. petroleum consumption with biofuels by 2030.

The joint USDA/USDOE 2005 study entitled *Biomass As Feedstock For A Bioenergy And Bioproducts Industry: The Technical Feasibility Of A Billion-Ton Annual Supply,* estimated that 368 million dry tons of sustainably removable biomass. This study identified approximately 60 million dry tons of fuels treatments and 41 million dry tons of logging residues that could be removed annually. The report noted that the US

government has spent $8.2 billion in the past decade to suppress wildfires that have burned 49 million acres of land.

The report further references a US Department of Energy forecast that 10% of industrial chemicals and materials will be produced from renewable resources by 2020 and approaching 50% by 2050. The USDEO estimated that a 10% share, the annual value of these chemicals would be $400 billion. In perspective, that is approximately twice the value of all forest products produced in the United States.

There is significant evidence of the need for opportunities related to biomass utilization in Oregon. The following section highlights the research, programs, and legislation in Oregon that will increase the viability and partners involved with this proposed project.

The Oregon Forest Resources Institute produced a report entitled *Biomass Energy and Biofuels from Oregon's Forests* in June 2006. According to the report, federal forest scientists have identified 12.2 million acres of forestland statewide in Fire Condition Classes 2 or 3. Oregon has more lands at fire-risk than any other state in the country. These lands are primarily found on federal forestlands. The report looked at 20 counties in southwest and eastern Oregon. The report identified the need to simultaneously address three challenging problems:

1) Restoring Oregon's forest health
2) Finding renewable energy alternatives
3) Revitalizing Oregon's rural communities

The report recommended establishing a pilot cellulose-to-ethanol plant as well as promoting the goals of sustainable biomass energy development.

The OSU Chemical Engineering Department, OSU Institute for Natural Resources, and OSU Wood Innovation Center produced the report *Oregon: Biofuels and Biomass*, in May 2007. Similar to the OFRI report, the report also focused on the three challenges listed above with greater focus on bio-based products and bio-chemicals. The report stated, "The Oregon Innovation Council's plan to form the Bio-Economy and Sustainable Technologies (BEST) Signature Research Center present an opportunity for Oregon to lead the nation in developing renewable and sustainable energy and materials from woody biomass and as a result, realize the tripe win described above. The authors of the report believed that western Oregon would be the best place in the state to build an initial cellulosic ethanol research demonstration facility.

According to the National Renewable Energy Lab, biofuels produced from biomass can generate seven times as much income as bioenergy from that same biomass. The burning of woody biomass to produce steam is very inefficient and the relative value of electricity is much less than the relative value of liquid transportation fuels. Biofuels have the potential for paying for the excess biomass to be removed from moderate and high risk fire lands.

The previous reports document the availability of woody biomass feedstocks on a regional and statewide level. However, this information is not sufficient to foster the public and private investment required of a project of this scale. According to the *Oregon Cellulose-Ethanol Study* completed for the Oregon Department of Energy in 2000, further research is necessary to determine the location and amounts of recoverable thinnings. Additionally, feedstock costs are critically important to production economics. The cost figures and assumptions developed at the statewide or regional scale will not be accurate at the local level. The Oregon DOE report identifies that forest residues, wheat straw, and green waste show the best return on investment. And it points out that more research is needed to determine the net availability and price of specific feedstocks in a concentrated area before more accurate internal rate of return.

The Oregon Department of Forestry Forest Biomass Working Group generated a January 2007 report about its recommendations for forest health issues, particularly on federal lands. The working group had created six working groups including biofuels. The biofuels recommendations included establishing cellulosic ethanol goals produced in the state of 5 million gallons by 2008 and 25 million gallons by 2010. The Forest Working Group also recommended the building of a cellulosic ethanol commercial demonstration facility within the next two and a half years.

The Oregon State Legislature passed a Renewable Fuels Standard in June 2007 that mandates that 10% of transportation fuel come from ethanol sources in the future. The legislation also includes tax credits for forest biomass collected and used for the production of bioenergy and biofuels.

Project Coordinator and Partners

Lane County Government is the legal entity for this project. The county government sponsored a cellulosic ethanol meeting on June 21, 2007 in Eugene which attracted 25 participants across a broad spectrum including forest products companies, public universities, biofuels development companies, environmental organizations, federal and state natural resource agencies including the Forest Service, BLM, and community organizations.

The other partners identified for this project include Lane Community College Business Development Center, Mater Engineering, Oregon Environmental Council, Lane MicroBusiness, Resource Innovations at the University of Oregon, and Northwest Cooperative Development Center. This collaborative effort stems from the previous work by the Oregon Department of Forestry forest biomass working group. The 2005 Oregon State Legislature established the working group to address critical forest biomass accumulation problems, particularly on public forestlands.

Goals and Objectives

This project will demonstrate the collective capability of a diverse group of partners – many of whom have had sharp differences in the past over forest management – to be able to work together on common goals that could advance landscape-scale forest restoration projects. This project addresses the "triple-energy" related challenges

(economic and energy growth, energy security, and climate protection) identified by the US Department of Energy and the "triple win" identified in biomass/biofuels reports by the Oregon Forest Resources Institute and Oregon State University (restoring Oregon's forest health; renewable energy alternatives; and revitalizing Oregon's rural communities.). The specific goals and objectives of this project are:

1) By updating the Coordinated Resource Offering Protocol (CROP) study completed for Lane County in 2005, determine feedstock availability, location, price, competing sources, and accessibility for a woody biomass for a 50,000 green ton cellulosic ethanol demonstration facility to meet the USDOE standard of less than $45 per ton price by 2010.
2) Educate public and key stakeholders about the biomass to cellulosic ethanol project and identify obstacles to future investment.
3) Assess the capacity of forest biomass processing businesses.

Strengthen local forest contracting businesses through business training and networking.

Project Description

This proposeal focuses on western Oregon to analyze its potential to provide woody biomass from public and private forestlands as part of the national effort to address the triple energy-related challenges identified by the USDOE and USDA. In particular, this grant focuses on identifying and developing the economic and environmental means to harvest and collect 50,000 green tons of woody biomass for less than the USDOE goal of $45 per dry ton annually for a cellulosic ethanol demonstration facility to be likely built in Lane County.

Proposed tasks are categorized in the four major areas. The proposed activities include:

1) Update Lane County CROP study for two more years for 2010 and 2011 to analyze the potential biomass flows from public and private forestlands.
2) Lead educational activities to enhance the level of public understanding and acceptance of the use of forest residuals. Identify key public issues that would need to be addressed for a demonstration facility.
3) Assess the capacity of forest biomass processing businesses
4) Strengthen local forest contracting businesses through business training and networking

1. Update Lane County CROP study for two more years for 2010 and 2011 to analyze the potential biomass flows from public and private forestlands

The Coordinated Resource Offering Protocol (CROP) pilot projects began in 2006 as a means to address the growing fuel load problem and the realized potential for catastrophic wildfires within major forest systems across the US. The CROP model was initially developed in 2003 by Mater Engineering as a means of targeting unlevelized, erratic resource offerings from public forestlands that directly discouraged investor interest in working with public agencies to remove woody biomass from high fire risk

forests and restore forest health. The basic tenant of the CROP model is:

- Unlike other forest biomass projects that focus on *biomass inventory*, the CROP projects focus on the volume **proposed to be removed** from the forest floor within a target period (5 years out). The deliverable is biomass *removal performance*, not biomass *inventory* that may or may not lead to biomass removal.

For a detailed description of the CROP studies, please see the appendix.

As part of this grant, the updated CROP effort would be directed towards "identifying" how the 50,000 green tons of woody biomass would be collected, where the woody biomass would be collected, as well as calculating carbon sequestration values for the woody biomass. The grant would be linked to a public / private partnership that is being developed in Lane County, Oregon to build a cellulosic ethanol demonstration facility.

Mater Engineering will be the lead partner for this component.

2. Lead educational activities to enhance the level of public understanding and acceptance of the use of forest residuals.

Recent publications have discussed the importance and need to understand public perceptions and address issues raised by the public. For example, the OSU Biofuels and Biomass report states, *"public support is critical to gaining the 'license to operate' on public lands. Basing restoration treatments on sound science is one path towards gaining public support."*

The OFRI report states, *"Regardless of the worthiness of other goals such as renewable energy and rural development, growth of a forest biomass energy industry will not proceed until the public reaches a consensus on what management strategies are appropriate on these public lands."*

Recognizing the importance of public support and the lack of consensus surrounding forest management, we are proposing a suite of educational activities to:

- Educate and inform the general public about the cellulosic ethanol and its benefits;
- Conduct a series of focus groups to identify potential issues that a demonstration facility would need to address (e.g. feedstock source, additional vehicle trips, emissions, noise, etc.);
- Establish "Willamette Valley Biomass Study Group" comprised of key stakeholders, and target specific educational activities, such as speakers, presentations, and dialogue with the members; and
- Develop a web site to keep all interested parties informed of current research and project activities.

The group will hold a minimum of five general public presentations in both urban and rural parts of Lane County and Douglas County to showcase woody (and agricultural) biomass collect opportunities and how a cellulosic ethanol facility will operate. The presentations will be held in Eugene, Springfield, Roseburg, Cottage Grove, and Veneta.

The connection between cellulosic ethanol and the use of woody biomass is a concept the public may not be aware of. As part of the educational effort, a web site will be created to keep the public informed about the contract. This grant also anticipates that other groups, such as local Chamber of Commerce organizations or civic duty organizations, will request presentations.

The education component will be performed by many of the partners including Lane County government, Oregon Environmental Council, Resources Innovations, LCC Business Development Center, NW Cooperative Development Center, and Lane MicroBusiness

3. Assess the capacity of forest biomass processing businesses.

As noted earlier, the cost of feedstocks is central to the viability of a cellulosic ethanol facility. Collection, processing, and transporting are a large part of the cost. Having a sufficient number of viable forest contracting businesses that can provide the quantity and quality of forest biomass during the seasonal operating periods is a key consideration. In this task we will:

- Gauge the capacity of local contractors to provide the biomass utilization services
- Gauge the level of interest in participating in stewardship contracting and other long-term supply contracts
- Identify the potential barriers and obstacles to increasing the amount of biomass and fuels reduction work provided by local firms
- Identify opportunities for training, skill building, and new business opportunities
- Help federal land management agencies understand local capacity to do provide forest residual collecting, processing and transporting.
- Increase the capacity of local collaborative groups to develop stewardship projects that provide employment opportunities for local firms.
- Identify ways that stewardship contracts could be packaged so that they are more appealing to local firms and that local firms are competitively positioned to capture them.

Resources Innovations will be the lead partner with other partners such as NW Cooperative Development Center, Lane MicroBusiness, and LCC Business Development Center.

4. Strengthen local forest contracting businesses through business training and networking

Building off of the results from the workforce assessment, we will design a series of trainings and business assistance programs to help local businesses participate in the new biofuels economy.

Grant funds would be used to provide training to small businesses to participate in the sustainable market-based opportunities. For example, Lane Community College Business Development Center and Lane MicroBusiness would provide technical and business training services to contractors. This technical and training help would include business skills training such as how to obtain forest/farm labor contractors' licenses, how to report and pay federal and state taxes, how to develop an accounting system to track job costs, etc. Technical help would also include helping contractors obtain small business loans to acquire logging and processing equipment.

The partners on this project will offer presentations to logging and forestry service contractors about participation in the biomass collection process. For example, the contractors will need to provide high quality biomass. Contractors will be paid more if the biomass is dried and finely chipped. In addition, contractors will need to learn how to document the collection of the biomass so that they will receive the biomass tax credits. We propose to hold two meetings for the contractors in Roseburg and Eugene. The public meetings will be followed up with individual meetings with contractors.

Lane MicroBusiness and Lane Community College's Business Development Center will be offering direct services to contractors for business training, skills development, access to capital, developing business plans, and business counseling. Many small and microbusinesses frequently lack the necessary management skills and capital access to successfully get off the ground. Lane MicroBusiness has been awarded a contract for the Oregon Economic and Community Development Department to provide business services to individuals operating in rural parts of the state.

Lane MicroBusiness has developed Entrepreneurial Development Services Assessment Tool to analyze the current state of the entrepreneur's ability to successfully launch and build the company. This assessment tool includes 17 assessment categories, such as business concept, environmental scan, technical skills, etc. to analyze both the strengths and weaknesses of the entrepreneur.

The Northwest Cooperative Development Center (NWCDC) will be responsible for promoting and assisting in the development of the business's collaborative nature. NWCDC has a proven track record of providing educational, business planning and technical assistance to groups of owners of non-Federal forest lands. NWCDC will present on cooperative business models which could enable broad stakeholder ownership of the facility and provide organizational development to any potential Steering Committee. In addition, NWCDC will work in conjunction with LMB to assess the potential for ancillary businesses to be cooperatively organized. As a result of distributed nature of forest resources (i.e. cellulosic feedstock), NWCDC feels the industry holds potential for the organization of cooperatively-owned businesses.

Timelines and deliverables for tasks:

Description	Timeline	Expected Deliverables / Outcomes
Public meetings and field tours	September – November 2007	Five public meetings attracting 80 – 100 people. One field trip attracting 15 members of the public.
Educational presentations to groups	September 2007 – January 2008	Four to five group presentations
Potential for local businesses	September – April 2008	15 clients receiving 10 or more hours of business training. 10 clients receiving less than 10 hours of training
Potential for local businesses	January – March 2008	Two presentations to contractors about biomass specs and building specs.
Forest residue assessment	September 2007 – March 2008	Five to seven meetings plus trips out to the forest to identify potential sites. Identification of 50,000 green tons of biomass
Web site / listserv	October 2007	Create web site.
Online presentations	October, February and May	Using Microsoft Live Meeting, hold online presentations for a national audience about the efforts of the group
Report	July 2007	Generate a forest residue report and results of the educational effort.

How the deliverables/tasks/successes will be measured

The deliverables / tasks / successes will be measured using VistaShare, an online database program utilized by Lane MicroBusiness that will record the attendance at the educational presentations, contractor presentations, and business services provided to local businesses.

Budget Justification Narrative

Source of funds

The source of funds includes both the USFS grant and the match commitments from the seven partners on the grant. Letters of matching commitment are provided in the appendix. For example, Lane MicroBusiness has a rural economic development grant from the Oregon Economic and Community Development Department which will be used for the providing of business training. Lane MicroBusiness provides small business grants to low income individuals with a program entitled Individual Development Accounts. LMB anticipates that two low income businesses will participate in the program and each receive $4,000 in funding for their business plus another $5,000 in business training and consulting services rendered.

Use of funds

The funds will be expended in each of the four components of the grant proposal.

Biomass flow analysis

Mater Engineering will be the lead partner to update the CROP study for two additional years. Additional work will be performed by the other partners related to support and assessing the potential of small woodlot owners and urban wood waste. The total estimated cost will be $38,500. Mater Engineering will produce an updated report as shown in the appendix.

Funding will also be used to provide mileage reimbursement at the standard IRS rate of 48.5 cents per mile for the partners. For general purposes of discussion, we estimate that there will be 15 participants who will attend 6 – 8 meetings with an average mileage round trip of 50 miles for an approximate cost of $3,500. These mileage costs will be distributed to the different partners.

Educational component

The Education Project component will consist of public meetings, field trips, printed materials, website for the dissemination of information. The projected cost is $17,500. As part of the Educational project, one large field tour involving the public is estimated to cost $2,500. Oregon Environmental Council will help with the online component of the educational outreach as the organization already has a popular biofuels listserv. Funds will be used to pay for transportation costs for the five different public presentations.

Assess processing capability

This component will consist of contacting contractors and landowners to assess the capability of biomass removal in the area. The report will assess the relevant strengths and the weaknesses of local contracting capacity related to biomass utilization. Resources Innovations will be responsible for drafting the report. Other partners such as NW Cooperative Development Center will assess if there is potential for cooperative development models to help with the processing capability. Both Lane MicroBusiness and LCC Business Development Center will assess the business capability of the contractors. The total cost is $34,000.

Support Local Businesses
This component will focus on outreach and training to small businesses located in rural areas. Lane MicroBusiness has taught business classes in many of these rural areas such as Cottage Grove, Oakridge, and Florence. Lane MicroBusiness will be offering 3:1 matched grants to low-income individuals worth a total of $4,000 who want to start a business. Lane Community College Business Development Center will be offering a sustainable business management program starting in the fall 2007. The regular tuition rate is $549, but the tuition will be waived for rural low income individuals who want to participate in the program.

Why Forest Service funding is important to jump-start this effort

This proposed grant, if awarded to the partnership, is only the first step on a very long and very complex path towards the building of a cellulosic ethanol demonstration facility. An award from the Forest Service by August 3rd would allow the collaborative to include that award in a USDA/USDOE cellulosic ethanol solicitation. This Forest Service grant would help to strengthen this next proposal.

Additionally, a grant award will help to attract private venture capital. Lane County government has been contacted by a large NW law firm that represents investors who are looking to make clean energy investments.

Budget

	Source of Funds			Use of Funds				
Organization	USFS	Match	Total	Biomass Assess	Educate	Assess processing capability	Support Local Busi-iness	Total
Lane County govt	$7,500		$7,500		$2,500	$2,500	$2,500	$7,500
Resources Innovation	$17,500	$5,000	$22,500	$5,000	$3,000	$14,500		$22,500
NWCDC	$12,000	$3,000	$15,000		$2,000	$5,000	$8,000	$15,000
LMB	$28,500	$15,000	$43,500	$7,500	$5,000	$8,000	$23,000	$43,500
Lane BDC	$7,500	$2,500	$10,000			$2,500	$7,500	$10,000
OEC	$8,000		$8,000	$1,000	$5,000	$2,000		$8,000
Mater Engineering	$14,000	$3,500	$17,500	$17,500				$17,500
Total	$95,000	$29,000	$124,000	$31,000	$17,500	$35,000	$41,000	$124,0-00