

THE STEWARDSHIP CHRONICLE

The newsletter of the Ecosystem Workforce Program

"Helping communities build quality jobs in ecosystem management"

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Connecting Watershed Restoration with Local Economic Development

By Louise Solliday, Governor's Natural Resources Policy Office

In Oregon, the Oregon Watershed Enhancement Board (OWEB) provides significant funds for a range of watershed enhancement activities. These include watershed council support, assessments and monitoring, planning, on the ground projects and education and outreach projects.

Historically, OWEB (formerly GWEB) had relatively small amounts of funding per biennium to fund demonstration and education projects. Statutory guidance directs OWEB to maximize the use of volunteers in project implementation. OWEB's rules were amended in 1998 to encourage the use of trained ecosystem workers where work could not be accomplished with volunteers.

With the passage of Measure 66 in 1998, dedicated lottery funds will be available for 15 years to support watershed enhancement work throughout the state. In the current biennium OWEB has about \$35 million in state grant funds and expects to receive a minimum of \$9 million in federal funds as well. With significant resources now available, making a stronger connection to quality job creation is a logical next step.

One of the first tasks that needs to be accomplished is a review of the 1997-99 grants to assess how many people were employed and at what wage levels with OWEB funds. It appears as though a number of family wage jobs are currently supported at least in part by these funds. Several coastal watershed councils and soil and water conservation districts employ crews trained as a part of the Hire the Fishers and Jobs in the Woods programs.

This year a task force is being created to suggest to OWEB how to make a more formal link between watershed enhancement efforts and ecosystem workforce development and utilization. With over

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In the near future, the EWP will be releasing its Briefing Papers Series

The First in this Series will be:

Lessons from Community-Based
Workforce Assessments



Update From the Program Manager

By Charles Spencer, Ecosystem Workforce Program

On December 14, I had the honor of joining with four pioneers for quality jobs in ecosystem management to give a Washington D.C. briefing for top policy level and procurement staff of the US Forest Service, US Bureau of Land Management (BLM), and US Fish & Wildlife Service. The meetings were arranged and kicked off by Tom Brumm, on loan for one year from the Oregon Community and Economic Development Department to the President's Council on Environmental Quality (CEQ).

The purpose of the briefings was to share two important stories of innovation in Oregon over the past five years. First, the briefing covered the story of strong partnerships between the Forest Service and BLM and rural communities through the Willamette Province Workforce Partnership and between Coos Bay District BLM and the Coos and Coquille Watershed Associations. Second, the briefing covered the innovations, planning, and implementation of contracted work in a way that benefits communities, strengthens the capacity of the ecosystem management industry, and diversifies the skill base of the workforce to meet the need for multi-faceted ecosystem management in the long term.

Darrel Kenops, Willamette National forest Supervisor, provided a brief orientation to the unique setting of the Northwest Forest Plan, Northwest Economic Adjustment Initiative, and the Jobs in-the-Woods program. Sue Richardson, District Manager for the Coos Bay District BLM, told the story of ground-breaking collaboration with the watershed councils in Coos County to get restoration work done on key watersheds while providing stable employment opportunities for local, displaced forest workers and coastal fisherman. Brad Leavitt who coordinates the joint Forest Service and BLM Willamette Province Workforce Partnership told the story of their collaboration to reconfigure how work is contracted by the agencies so as to raise the likelihood of long-term stable employment. Cecelia Headley, a small contractor from Lane County, described why

Adapting As We Learn

By Mike Rassbach, Sweet Home Ranger District U.S. Forest Service

The Willamette Province Workforce Partnership Program (WPWP) consists of key partners from the Eugene and Salem U.S. Bureau of Land Management, the Willamette National Forest, the Ecosystem Workforce Program, and the Oregon Department of Forestry. In 1996, WPWP moved from a workforce training program to a program that designs contracts for ecosystem restoration work. These contracts are designed for the private sector under the Jobs in the Woods Authority, the Quality Jobs Program, and the Adaptive Management Area Guidance. The partnership identifies watershed restoration and ecosystem management work that can be packaged into contracts that provide longer term employment at a family wage.

During 1996, five restoration and ecosystem management contracts worth \$215,000 were awarded. This past year, we offered sixteen contracts with an advertised value of \$650,000. Typically, these contracts included multiple tasks and the work was located at various administrative units within the Willamette province. Tasks within these contracts included but were not limited to: timber cruising and tree marking, stand exam surveys, red tree vole surveys, mollusk surveys, wildlife exams, snag creation, road revegetation, road decommissioning and storm proofing, native seed collection, and streamside restoration.

We used innovative contracting techniques to improve the quality of the contract work. For example, contracts were awarded on the basis of "best value to the government" rather than low bid. In addition, contracts included provisions for "indefinite quantities" to provide increased flexibility. Finally, these service contracts were designed to be performance based in an effort to attain the best results on the ground.

All sixteen contracts offered for bid were awarded to thirteen small businesses. Several of the contractors employed graduates of the former workforce training program and forest workers affected by the timber harvesting reductions. After four years of offering these multi-task and multi-agency restoration and ecosystem management contracts, we have noticed some interesting changes in the industry and have learned some important lessons.



The industry has adapted to multi-task and multiagency contracting by developing a labor pool with diverse skills in ecosystem management. Moreover, we have demonstrated that using "best value" in awarding contracts rather than "low bid" allows us to identify highly qualified contractors who do quality work at a market rate. We have also learned that we need to maintain communication with the contractors and among our agency partners so we can adapt our program for the future.

Over the past four years, we have also identified several challenges with our efforts to design contracts that help to create quality employment. For example, early budget uncertainties in our respective agencies often postpones contract planning and implementation well into the fiscal year (i.e., July to September). Also, many of our employees are not use to contracting in this manner. Contracts containing multiple tasks across multiple agency boundaries are not standard practice. Moreover, we are learning how to work through some of the complexities with project development, fiscal accountability, roles of contract administrators, and contract performance measures.

Although some challenges remain, they are by no means insurmountable. Each application of a multitask contract involving several agencies yields benefits for the local industry and sheds some more light on how we can do contracting better.

Mike Rassbach is the District Ranger for the Sweet Home Ranger District in the Willamette National Forest. If you would like more information about this program, please contact Mike at 541-367-9201

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the multi-disciplinary, longer duration contracts benefit the contractor, the worker, and the landscape from a contractor's and worker's point of view. With these amazing pioneers telling the story, it was easy for me to follow up with a brief reminder that none of the results described could happen without strong reliance and alliance between the agencies and their community partners.

There was strong support among the nineteen policy, budget, and procurement officials with discussion aimed at how to apply what has been learned in the Pacific Northwest nationwide. Current federal initiatives including the USDA's H.I.R.E. program and BLM's interest in a Jobs-on-the-Range program need the benefit of what we've learned in the Northwest the opportunities, successes, and the pitfalls.

Both Ron Wester of the Forest Service Washington Office of Acquisitions and Management and Joe Federline of the BLM's Procurement office observed that multi-disciplinary contracts were within the current authority of the agencies. They expressed interest in helping to find ways to meet the intent of recent changes in federal acquisition rules by focusing more on results and performance as well as cost. They also expressed interest in sharing this innovation around the country. They pointed out that the Government Accounting Office will soon be reviewing the implementation of procurement reform.

On our next and last day in Washington, we met with congressional staff of Senators Craig, Domenici and Wyden; with the staff of the Senate Natural Resource Committee; with legislative staff of the Forest Service and BLM; and, with Governor Kitzhaber's representatives in Washington, D.C. Kevin Smith and Tom Brumm of CEQ. We offered the same presentation followed by supportive comments and questions exploring what it would take to encourage similar innovation elsewhere. The staff people were amazed to hear that we were not meeting with them to lobby for money. We pointed out that the more difficult task in the long run is sharing needed information in a way that stimulates innovation for sustainable landscapes and communities. Money is needed, but commitment and strategic solutions must pave that way for spending that leads to sustainable futures.

Finally, we were gathered at the office of American Forests for a quick briefing of staff from American Forests and the Pinchot Institute. In keeping with a growing discipline of information sharing and collaboration among community forestry practitioners across the country, we shared what we said and what we heard, and swapped ideas on how to keep supporting progress toward sustaining our communities and the landscape.

After six years supporting community and government efforts to establish an ecosystem management paradigm based on skilled, local workers and businesses who can meet our stewardship needs for the long haul, it was gratifying to see the level of understanding and support during the briefings. We have known from the beginning that difficult systemic change will require innovation and commitment all the way from the bottom to the top and on the many linked fronts in between. We think there is support and commitment at the federal level. We also know that this will mean little if those of us at the community and regional level don't keep making progress. We have to be smart enough and network enough to keep moving on these many fronts simultaneously. A big challenge? You bet! But what a way to kick off a millennium!





Lake County Assesses its Ecosystem Management Industry

By Marcus Kauffman, Sustainable Northwest

Local residents in Lake County are on to something interesting. For years, their community has been blown by the harsh winds of change that have swept across natural resource management agencies, markets and demographics. Now some residents see these changes as opportunities and are taking steps to learn more.

What has raised the hopes of this isolated rural community on the edge of the Great Basin? Ecosystem management. Seems like a strange beast to hang your hat on, but it makes sense. Local residents here have always worked outside, whether it was for timber or for ranching. So when they learned that it could mean quality jobs for county residents, these folks perked up.

Now, those who get out in the woods around here and those who work for the agencies, know that this sounds good in theory but in practice, it's another matter. The ecosystem management market is regional and the workforce is mobile.

When local leaders began to learn more about it, they began to ask some hard-hitting questions. Just how much of this work goes to the local workforce and how much leaks out of the community? What kind of skills does the local workforce have and are they even interested in participating?

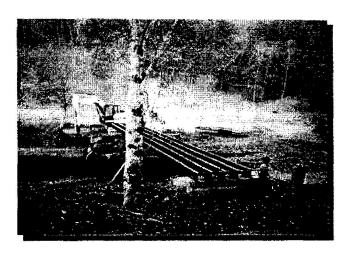
Eventually, the questions boiled down to fundamentals. Is the local ecosystem management industry big enough to warrant an investment of scarce community resources? And are local contractors and workers genuinely interested in participating in this kind of work? These are the questions that sparked the Lake County Ecosystem Industry Assessment. Local residents know that if they are going to "intervene" in the local industry they have to understand two important concepts — supply and demand. The assessment is designed to analyze both. Demand, in this case, is the volume of work and the types put out to bid by the US Forest Service and the US Bureau of Land Management (BLM) — the county's two major landowners.

Our analysis of demand is based on the dollar volume of work and the type of work from past Forest Service and BLM contracts from 1994 through 1999. The analysis of supply will quantify the number of contractors who have done this type of work in the past as well as document their skills, experience, equipment and interest in participating in training programs and contract reform.

The preliminary information from the study is already proving to be valuable. Initial analysis of Forest Service contracts indicate that Lake County contractors capture less than 25 percent of the contracts that are let on the Fremont National Forest. The initial estimates from the BLM data is even more striking: of the contracts above \$25,000 none were awarded to Lake County businesses and almost half went to one company. Of the contracts less than \$25,000, local contractors captured nine percent. The total value of this nine percent amounted to \$48, 475. It is clear that local companies do not win the vast majority of contracts from the federal natural resource agencies.

Local leaders hope that this information will spark the interest of the community and, in particular, local contractors and workers in capturing more of this work locally. The information provided by the study will enable Lake County and Sustainable Northwest to develop an action plan that includes a training program tailored to the needs of existing and future businesses.

Marcus Kauffman lives in the county seat of Lakeview and works for Sustainable Northwest. For more information about the Lake County Ecosystem Management Assessment, contact Marcus at 541-947-5461 or by email at marcusk@triax.com



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\$100 million spent annually statewide by tribal, federal, state, local and private entities on watershed enhancement activities, many requiring a well-trained workforce, connecting this funding to workforce development, particularly in rural communities, should become a high priority in Oregon.

Regional and Local Perspectives on the Ecosystem Management Market

By Chris Bayham, Ecosystem Workforce Program

In 1999, two separate and unrelated market studies suggest that there will be opportunities for ecosystem management services and workers in the future. The challenge will be advocating for and packaging these opportunities so that good paying and longer term work is available to local businesses and their employees.

The Northern California Ecosystem Training Center (NorCET) in Weed, CA conducted a regional market assessment in September of 1999 while the Economic Development Council of Tillamook County (EDCTC) in Tillamook, OR conducted a countywide assessment in February of 1999. NorCET's assessment was designed to evaluate whether there was sufficient work for the trained workforce in the region and to characterize the market for ecosystem management technicians in an effort to better plan their workforce development efforts. The goal of EDCTC's assessment was designed to help guide local economic development efforts and to evaluate if Tillamook County's current business community and workforce is prepared to meet the demand for future contract and job opportunities in the county.

NorCET conducted twenty-three interviews to determine the future demand (i.e., five to ten years) for ecosystem management technicians – sixteen of these interviews were representatives of businesses, agencies, and organizations that employ or contract with ecosystem management technicians. Most of those interviewed indicated that they felt there was an obvious need for ecosystem restoration and management work in the region.

However, NorCET noted that the key issue is whether available funds will be channeled to address those ecosystem needs. The general expectation of interviewees was that funding will continue to sustain ecosystem management efforts but funding for certain types of work, such as habitat restoration for salmon, is likely to expand.

Based on the subjective comments received during the study, NorCET concluded that - for the next five years - about 30 to 40 newly certified ecosystem management technicians could be graduated without flooding the job market in the nine-county study area in Northern California. NorCET also concluded that the strongest centers of opportunity will be where home offices of the larger resource management agencies, timber companies, and environmental consulting firms are located. Persistent, professional advocating for planning and funding of ecosystem management projects was identified as an important factor for sustaining opportunities in the field of ecosystem management. For some communities, contract or employment opportunities will be less consistent and highly dependent upon special, local organizational efforts and advocacy for ecosystem management projects.

The NorCET identified several trends that surfaced from their study. Highlights of these include an increasing demand for collecting data and monitoring components of an ecosystem such as species and vegetation surveys. There will also be an increase in the regulation of non-point source pollution and an increase in monitoring sedimentation in streams using measures of sediment loading such as total maximum daily load (TMDLs). This increased regulation will generate a demand for trained technicians who have skills in water quality monitoring.

In addition, attrition and downsizing within the USDA Forest Service and other resource management agencies will expand the need for ecosystem management technicians. Moreover, the study suggests that the U.S. Fish and Wildlife's habitat restoration programs such as *Partners for Wildlife* and *Job in the Woods* will continue and possibly expand. Moreover, there will be an increase in tightly monitored timber harvesting to reduce fuel load in forests.

The Economic Development Council of Tillamook County (EDCTC) took a different approach for

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its assessment of Tillamook County's ecosystem management market. The EDCTC surveyed both public and private organizations in the county in an effort to develop a forecast of local contract and job opportunities for the county's businesses and workforce. Of the eight organizations surveyed, three of these were public land management agencies, three were public agencies that manage environmental quality/wildlife/watershed restoration, and two were private timber companies.

Seven of the eight organizations surveyed provided detailed responses to the information requested in the EDCTC's survey. The survey instrument provided the respondent with a list of ecosystem services and directed the respondent to identify the services that they would need in the near future. Each respondent was also asked to identify the level of demand for each needed service in terms of labor hours or estimated project costs.

The ecosystem management services that were listed in the survey were grouped under the following categories: vegetation surveys, stream surveys, water quality analysis and monitoring, wildlife surveys, fish and wildlife habitat enhancement, road maintenance, road decommissioning, road work plans, watershed assessment and analysis, and Forest Practices Act implementation. The responses to the survey yielded information on an agency's advanced acquisition plan, on agency projects that were in the planning phase, on organizations who recently received grant awards to do ecosystem management work, and on seasonal employment opportunities within one state agency. The survey results were published in a newsletter and widely distributed to industry representatives, workers, public officials, community college representatives, high school counselors, and all the members of three watershed councils.

Based upon the results of the survey, the greatest opportunities for local businesses and workers were in road work such as culvert replacements and road decommissioning, fish habitat enhancement work, thinning of dead and diseased trees damaged by Swiss Needle Caste disease, and the development of a local tree nursery to support future re-vegetation efforts.

With this assessment of the future market for local ecosystem management services, the EDCTC can better plan the development of a local ecosystem management industry. By comparing this assessment of future contract opportunities with an assessment the county's workforce skills and business services, the EDCTC is able to identify gaps or weaknesses in the capacity of local businesses and workforce to perform the needed ecosystem management work in the county. Once these gaps are identified, the EDCTC can begin identifying strategies to address these weaknesses and gaps such as business recruitment, business incubation, or focused training programs to further diversify business services or the skills of the local workforce.

Prior to working with the EWP and pursuing a masters degree in community and regional planning. Chris Bayham worked for the Economic Development Council of Tillamook County through the University of Oregon's Resource Assistance to Rural Environments Program. Chris can be reached at 541-346-0661.

An Apprenticeship Program for Watershed Restoration

By Jim K. Walls, Columbia-Pacific RC&D

In 1992, the local communities along the Coast of Washington held an Economic Revitalization conference. One of the goals that surfaced from this conference was the need to aggressively deal with salmon before they became listed as endangered. In order to keep healthy salmon runs, those attending felt that we needed to restore salmon habitat while creating employment opportunities for timber workers who had lost their jobs due to the listing of the Spotted Owl.

To do this, we would need to create opportunities for displaced timber workers to diversify their skills to meet the future demand for ecosystem management work in the region. The International Woodworkers of America (IWA), Grays Harbor College, and Columbia-Pacific Resource Conservation and Development (RC&D) believed that the best way to train displaced timber workers in habitat restoration was through onthe-job training in an apprenticeship program. This was the beginning of the Watershed Restoration/Resource Worker Apprenticeship Program.

A key goal of an apprenticeship program is to develop a trained workforce in a particular specialty. A journeyman should be able to apply for a job in their specialty and their journeyman card should serve as



Reflections from the Field

By Jim Luzzi, Ecosystem Workforce Program

Having been active in the reforestation industry for 24 years and a participant as a contractor in three *Jobs in the Woods* contracts from 1994 to 1997, I would like to reflect on my perceptions of this program and look for lessons from my experience that may be helpful today.

What led me to start thinking about the Jobs in the Woods program again were two recent newspaper articles. These appeared as op-ed pieces side by side in the Eugene Register-Guard and were responses to the U.S. Undersecretary of Agriculture James Lyons' declaration of success for the Northwest Forest Plan that had appeared as a guest column in the same paper. Lyons was careful in citing success for the Plan in both its management practices guidelines and its economic component. The first response to Lyons was written by Paul Ehinger, a consultant to the forest products industry, and the second response was written by George Sexton, watershed coordinator of the American Lands Alliance.

Although starting from widely different assumptions, both responses maintained that Lyons' idea of success was a total fiction. Ehinger called it an insult to every struggling rural community in the west that is dependent on federal forests. Sexton declared that the only success involved was the Forest Service's success at public relations in convincing the public that the agency is environmentally responsible.

Now, if we understand the word ecosystem as being descriptive of the sum of the interrelations of the human world and the natural world, then both respondents are simply isolating one component from the other and calling that the entire show. Ehinger's primary point of reference is the ecosystem in terms of human needs specifically economic needs. Sexton's assumption is based on the primacy of the natural world's need to heal. Both respondents are talking about the same ecosystem, but appear to share no common ground to understand each other's assumed premises and consequent conclusions. At the same time, both cite the local citizen's desire to revitalize the forest. According to Ehinger, the citizen's desire to revitalize the forest is based on less restriction of extraction practices. Sexton, on the other hand, believes the citizen's desire is based on the management of the existing land base.

Now, it was a simple editorial technique to oppose

these two columns side by side, in a pro and con approach to the issue. It was clear, however, that a possible solution to the problems that both were concerned with could be more inclusive and successful if this solution tried to assimilate those concerns into a singular approach. The future envisioned by the Northwest Forest Plan of revitalizing both the economic base of rural communities and the health of the forest are of course not mutually exclusive. A truly ecosystem approach that attempts to achieve an ecological balance between the healing of rural economic depravation and the health of the forests is what the *Jobs in the Woods* program attempted to be.

From the very start of the program, it was evident from my perspective as a contractor that the goals of the program could not be achieved by the methods set up to achieve those goals. The fundamental aim was to employ displaced timber workers. At that point in time, the term displaced timber worker referred to a person who had lost a living-wage job in the forest products industry - mostly individuals from logging or milling operations. The criteria for awarding the *Jobs in the Woods* contracts, however, did not mandate that contractors provide any evidence regarding their hiring practices concerning displaced workers.

Most of the early Jobs in the Woods contracts used a bid evaluation criterion that was a precursor to the current 'Best Value' evaluations and did not necessarily base an award on lowest bid. Contractors would submit answers to a questionnaire that described past performance, technical capacity, and personnel skills. These answers were given points in a ranking system that eventually based the contract award on the points scored in association with other factors such as price. The stated intent to hire displaced workers was either not a factor at all or, in some very early versions, was assigned a maximum of 5 points. Even this paltry concession to the main goal of the program was not part of the solicitations for bid that were offered by the Willamette National Forest or the Eugene District Bureau of Land Management. In effect, there were no criteria for contract awards that addressed the primary goal.

As a contractor, my intent was to maximize my company's production. Since there was no contractual mandate to hire displaced workers, I could earn the greatest return on my efforts if I kept my own crews working or hired back those who had been laid off. Since our work was seasonally based, many crew members were laid off during particular seasons. My question to the local contracting officers was, "Do my

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laid-off employees qualify as displaced workers?" Even asking this question was beyond the contract requirements. My questions only pertained to the spirit and intent of the program. The legitimacy of my approach to consider my own laid-off employees as displaced workers was considered by all the contracting officers contacted to be a reasonable interpretation of the intent of the *Jobs in the Woods* solicitations. Their response was understandable since there was no contractual way to ascertain a contractor's intent to adhere to the spirit of the program prior to the award.

After the contract was completed, contractors were required to answer a list of three questions regarding employment data as part of the final invoice request. An additional question required a statement as to the "number of workers, if any, considered to be displaced timber workers." That was the extent of the documentation required of a contractor. That was also the only measure within the agencies' authority that might address the goal of employing displaced timber workers. As of this writing, none of this has changed. There is still no direct linkage of contractual obligations to hire displaced timber workers with the awarding of these contracts.

Now, what Ehinger and Sexton are calling the fiction of success follows from their limited understanding of what constitutes an ecosystem. This fiction of success is also the result of the inadequacy of the *Jobs* in the Woods program as it relates to specific hiring practices. Given the program's structural inconsistencies, it is a wonder that so much has been accomplished with so little policy and implementation foresight. Imagine if the energy and devotion expended to try to make the program fit its goals was instead directed toward an earlier start on devising practical contract strategies that combined rural economic development and restorative forest management practices.

We have come a long way in six years, and these new contract strategies are still evolving. However, I can not avoid thinking that the *Jobs in the Woods* program is an example of failed potential. Its failed potential only seems to lend credence to the opposing viewpoints expressed by Ehinger and Sexton. Raising expectations without making adequate systemic policy adjustments to strive for success seems to be a formula for discouragement and cynicism. If the potential of the *Jobs in the Woods* program is to be realized in other policy strategies, we will need to resolve the internal restraints that undermined the *Jobs in the Woods* program.

Jim Luzzi left the ecosystem management industry to pursue a masters degree in community and regional planning at the University of Oregon. While attending school, Jim serves as a Program Assistant at the EWP. He can be reached at 541-346-0661.

What is an Ecosystem Approach?

The ecosystem approach is a method for sustaining or restoring natural systems and their functions and values. It is goal driven, and it is based on a collaboratively developed vision of desired future conditions that integrates ecological, economic, and social factors, its is applied within a geographic framework defined primarily by ecological boundaries.

From The Ecosystem Approach: Healthy Ecosystems and Susialnable Economies. A report from the Interagency .

Ecosystem Management Task Force, June 1995

What is Ecosystem Management?

Ecosystem management recognizes that natural systems and processes must be sustained in order to meet the social and economic needs of future generations. Ecosystem management is the integration of ecological, economic, and social principles to manage biological and physical systems in a manner that safeguards the long-term ecological sustainability, natural diversity, and productivity of the landscape.

From Ecosystem Management in the BLM: from Concept to Commitment BLM/GI-94/005+1736, January 1994

What is A Quality Job?

A quality job pays at least \$13-15 per hour plus health and retirement benefits, provides employment for longer periods of time (ideally throughout the season) and requires skilled work that is safe.

From the Ecosystem Workforce Program, Institute for a Sustainable Environment

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their resume. Another goal of an apprenticeship program is establishing a fair wage for the skills and knowledge that an individual has acquired in a specialty such as ecosystem management.

The Columbia-Pacific RC&D established the first apprenticeship program for watershed restoration in the country. Today, we have 10 journeyman who have been employed with us since 1993-94. However, in order for our program to be successful, other areas in the region must establish similar apprenticeship programs in ecosystem management and private businesses must enter the ecosystem management market to expand employment opportunities for both journeymen and apprentices

Our Apprenticeship Program requires apprentices to receive 4000 hours of on-the-job training in ecosystem restoration and 562 hours of classroom related instruction to achieve Journeyman status. The on-the-job training component (i.e., 4000 hours) is broken down into Small Equipment Operation and Maintenance, Stream Work, Re-vegetation, Upland Restoration, and other related training subjects.

Apprentices must also go through 562 hours of classroom instruction. These courses range from everyday skills such as first aide, safety, and radio communications to technical courses such watershed hydrology, surveying, bioengineering, monitoring, and stream typing. Depending upon the arrangements with the local community college, classes can be taught at the workplace.

In addition to the basic apprenticeship requirements, individuals can choose to obtain additional specialties to their journeyman card such as heavy equipment operation and culvert analysis designations. These specialty courses are offered as alternatives since some apprentices are not interested in operating heavy equipment or conducting culvert analyses.

The salary structure is based on the number of hours an apprentice has completed. The first 1000 hours is 60% of a journeyman rate while the second 1000 hours is 75% of the journeyman rate. Moreover, if a contractor has an existing crew that will participate in the apprenticeship program, one of our key policies of the Apprenticeship Program is to maintain

the salary levels of this new crew.

Another key policy in our Apprenticeship Program is that full completion of the program's 4000 hours of on-the-job training or 562 hours of coursework is optional for an apprentice if the apprentice is not interested in pursuing a career at the Journeyman level. Every new apprentice can petition the committee to accept on-the-job experience from previous employment that was not related to the Apprenticeship Program. This experience has to be closely related to the on-the-job training and coursework provided in the Apprenticeship Program. In our experience, most timber workers could get credit for 1000 plus hours of on-the-job training from previous employment. For example, one apprentice in our program received all the credits for the classroom instruction. However, most apprentices have spent at least six months in the program before achieving the status of Journeyman.

Our program also has a policy that requires every apprentice to work with a journeyman. When we implemented the Watershed Restoration component of our Apprenticeship Program, there were no journeymen in the program. To address this issue, we designated half of the crew as journeyman while the other half were designated as apprentices. For start-up programs, this situation will most likely be the case.

If the network for apprenticeship programs spreads, we envision that public and private land managers needing ecosystem restoration work will realize that a trained journeyman means quality work that is done technically correct the first time. The quality work of a skilled workforce will ensure that land management agencies are in compliance with current regulations. However, at this point in time, we have yet to reach this vision of providing this essential foundation for establishing a new self-sufficient industry, but we are well on our way.

Jim Walls is the Executive Director of Columbia Pacific Resource Conservation and Development. Jim can be reached at 360-533-4648.



Training the New Watershed Restoration Workforce



By Mollie Owens-Stevenson, Rogue Community College

In 1994, the state of Oregon was looking to develop a model program for dislocated timber workers who wanted to continue working in the woods. Under the Northwest Forest Plan, the U.S. Forest Service and U.S. Bureau of Land Management were required to do restoration work in the forests, and a certain amount of that work was to be set aside for workers in rural communities. The goal of this set-aside program was to develop the skill base of the local workforce to do future ecosystem management work.

In Oregon, a group of activists and policy makers worked together to come up with a training model to link forest restoration work to job opportunities in an effort to provide on-the-job training in the field of ecosystem management. This training model was designed to make restoration work available to local workers particularly those workers who had formerly done logging or mill work and who wanted to continuing working in the woods.

Early in 1995, several organizations collaborated to form the Rogue Valley Ecosystem Workforce Training Program. The Training Program includes the following organizations: the Rogue Community College,



Rogue Institute for Ecology and Economy, U.S. Forest Service, U.S. Bureau of Land Management, Jobs Council, Southern Oregon Women's Access to Credit, Southern Oregon Regional Economic Development, and Convenio. By April of 1995, the first training was up and running. Over the next 5 years, this collabora-

tive partnership has worked together to develop a unique model of training support and delivery for Oregon's southern region. This program has been designated as a model for the state.

Today, the program trains students for one, two, or



three years in the skills of watershed and upland forest management, restoration, assessment, monitoring, and light touch logging. The students may earn a one year certificate in *Occupational Skills Training* or a certificate in *Ecosystem Management and Restoration*. Students may also continue to train and gain additional skills and certificates in special areas such as assessment, light touch logging, and supervision. This year, in response to requests from the contractors and workers, the Training Program is offering a series of workshops for those who are currently working in the field and want to develop additional assessment, computer, and management skills. Additionally, for the first time, all of the training activities that the we provide are fully self-supporting.

Now, the Oregon Economic and Community Development Department, U.S. Forest Service, and Wells Fargo Bank are supporting a project to help other communities start similar programs. The Training Program is developing management assistance services, course outlines, class syllabi, field competencies and training aids that are available to any community that is interested in developing a training and delivery program in their area. In addition, on-site or telephone technical assistance is available to those who are just exploring the possibility or want to proceed with program planning in the near future.

If you are interested, call Mollie Owens-Stevenson at (541) 245-7911 or Glen Brady at (541) 482-6031. Mollie is the coordinator for Training and Resources at the Rogue Community College.

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The University of Oregon's Ecosystem Workforce Program (EWP) was created in 1994 to help lead the transition of the rural Pacific Northwest into the age of ecosystem management – managing for healthy communities and healthy environments. The EWP understands forest ecosystems and human communities to be interdependent. We believe that by creating high quality jobs for local workers we will simultaneously establish a structure and incentives to maintain long term resource stewardship. Our goal is to demonstrate the linkages between a quality workforce, a healthy economy, healthy community, and the effective management for healthy forest environments in the long run.



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