



**The  
Materials  
for the  
Future  
Foundation**

# resources

for Community Development Enterprises in Recycling and Reuse

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## COMMUNITY WOODWORKS EXPANDS MARKET FOR RECLAIMED LUMBER

In the growing market for green building products, Community Woodworks (CW) has come to fill an important role in expanding the wood reuse industry. CW, an innovative lumber mill located in Oakland, CA, is a vital link between deconstruction enterprises and those Bay Area customers interested in reclaimed wood products. The mill purchases raw salvaged wood recovered from old buildings, removes nails, sorts the

lumber, and re-mills it into high-quality reclaimed wood products available to builders, furniture makers, homeowners, and artists. CW's mission is to expand the market for reused wood while creating jobs for low-income individuals.

MFF serves as fiscal agent for this project, which was founded by a coalition of community-based groups seeking ways to support deconstruction as a means of training and

employing low-income individuals. CW is the first full-service Bay Area woodshop to specialize in reclaimed lumber. CW aims to be a leader not only in protecting our natural resources, but also in helping to rebuild economically disadvantaged communities. To this end CW works closely with businesses and programs that train and employ low-income

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## WORKING GROUP BUILDS ELECTRONICS RECYCLING INFRASTRUCTURE

With the break-neck pace of current technological advancements, computers and other electronic devices quickly become obsolete. As more and more outdated equipment enters the solid waste stream, the question of what to do with this Electronic waste (e-waste) becomes increasingly urgent. MFF is working to tackle the growing e-waste dilemma.

MFF, through funding from the US Environmental Protection Agency, Region IX and the California Integrated Waste Management Board, has hosted several Electronics Recycling Infrastructure Working Group meetings to focus on reusing and recycling e-waste. Representatives from industry groups, corporations, community-based organizations, as well as city, county and state agencies have gathered regularly over the past several months.

The Working Group has highlighted the many economic, regulatory and logistical barriers to recycling electronic devices such as computer hardware, monitors and television

sets. Products such as these are difficult to dispose of or recycle due to the complex composition of materials that they contain, some of which are toxic. Cathode Ray Tubes (CRTs) from monitors and televisions are of particular concern due to the large quantity of lead contained in the glass.

In response to a letter sent by MFF, the California Department of Toxics and Substance Control (DTSC) has officially stated that discarded CRTs qualify as hazardous

waste under both state and federal law. As such, they must be managed according to hazardous waste requirements. At the most recent Working Group meeting, held at Santa Clara University on March 22, current CRT regulations were clarified by DTSC officials and drafts of potential CRT legislation were reviewed.

The next Working Group meeting will be Monday, April 23, 2001. The focus of this meeting will be the development of environmentally preferable procurement guidelines for government agencies.

**RECYCLE** your old, unwanted computers and electronic devices!

### **Bay Area:**

Silicon Valley Toxics Coalition,  
Clean Computer Campaign  
[www.svtc.org](http://www.svtc.org)

### **California:**

California Materials Exchange  
[www.ciwmb.ca.gov/CalMAX](http://www.ciwmb.ca.gov/CalMAX)

### **National:**

Electronics Industry Alliance  
[www.eiae.org](http://www.eiae.org)  
International Association of  
Electronic Recyclers  
[www.iaer.org](http://www.iaer.org)

**Resources is the newsletter of the Materials for the Future Foundation (MFF), a nonprofit organization that supports community-based reuse and recycling enterprises in the San Francisco Bay Area and Northern California, while promoting community economic development within the recovered materials industry.**

**Please contact us to share your thoughts and to find out more about our services, publications and resources.**

**Materials for the Future Foundation  
Presidio Building 1016, Suite 222  
Lincoln & Torney Avenue  
P.O. Box 29091  
San Francisco, CA 94129-0091  
(415)561-6530 (415)561-6474 fax  
e-mail: mff@igc.org  
www.materials4future.org**

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#### **STAFF**

**Linda Christopher**, *Program Director*

**Sheila Davis**, *Community Development Director*

**Lisa Geller**, *Program Coordinator*

**David Hanchett**, *Environmental Economic Development Associate*

**Steven Sherman**, *Revolving Loan Fund Administrator*

**Coy Smith**, *Executive Director*

**Simon Walker**, *Resources Coordinator*

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#### **MFF GIVES THANKS FOR GENEROUS SUPPORT IN 2000-01**

Alameda County Waste Management Authority & Recycling Board  
BankAmerica Foundation  
California Integrated Waste Management Board  
City of San Francisco Recycling Program  
Columbia Foundation  
US Dept. of Health and Human Services  
U.S. EPA, Region IX  
Gap Foundation  
James Irvine Foundation  
William & Flora Hewlett Foundation  
Flora Family Foundation  
Jessie Noyes Smith Foundation

**Special thanks to LIZ TASCIO for her invaluable assistance!**

## **GRANTS AWARDED TO ALAMEDA COUNTY FIRMS**

MFF, as an intermediary for the California Integrated Waste Management Board (CIWMB) and the US Environmental Protection Agency Jobs Through Recycling Program (JTR), authorized grants to three Alameda County enterprises last year. A total of \$14,000 was given out to further the JTR mission of reducing the amount of waste going to landfills while creating jobs in local communities. Here are some brief descriptions of the three grantees.

**ENCORE PRODUCTS** designs and prototypes composite wood products for industrial customers using recycled wood. Encore can press composite panels that are similar to particle board or medium density fiber board (MDF), materials that are widely used in various industries. The binding resin used by Encore allows them to develop materials that have greater strength, lighter weight and increased flame-retardancy while lacking the toxic out-gassing of MDF. They received \$6,000 to target clients and identify potential product niches. Based on this research, Encore has chosen to market directly to automobile manufacturers to produce dashboards. There is growing demand in the automotive industry to include more reused materials in cars, and Encore's unique approach will greatly reduce the competition it faces.

### **THE ALAMEDA COUNTY**

**COMPUTER RESOURCE CENTER** (ACCRC) is a non-profit computer recycling organization dedicated to providing the community with computers in order to prevent the economically disadvantaged from becoming technologically disadvantaged. ACCRC provides computers to those in need, offer technical training and recycles computer equipment that can't otherwise be repaired. The computers are refurbished through their Computer Repair Internship Program. Throughout the process, ACCRC ensures that non-working electronic equipment does not end up in the landfill. The JTR grant of \$3,000 supported UC Berkeley Professor Arpad Horvath's study of ACCRC's recycling and repair operations. This research has allowed the center to expand their operations.

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## **COMMUNITY WOODWORKS** (continued from page 1)

individuals in the salvage, deconstruction and wood reuse industries. Five workers are employed at the mill itself, and CW indirectly supports the employment of at least 30 others through the deconstruction enterprises that supply the mill.

CW has already been recognized as a model for resource conservation and job creation. The mill's July 13, 2000, Grand Opening was attended by Oakland Mayor Jerry Brown, State Assemblywoman Audie Bock and United States Environmental Protection Agency (US EPA) Region IX Administrator Felicia Marcus. At the event, CW was awarded with two Certificates of Special Recognition. CA

State Senator Don Perata applauded CW's efforts to protect the environment, create jobs and empower individuals to rebuild communities. US Representative Barbara Lee also recognized CW's invaluable service to the community. The event was sponsored by Weyerhaeuser Co., US EPA Region IX and Alameda County Waste Management Authority.

Since its opening, CW has processed 70 tons of salvaged lumber, the bulk of which was deconstructed from warehouses on the Oakland Army Base. Current output is at 12,000 board feet per month. CW anticipates diverting 150 tons of materials from the waste stream in 2001.

# RECYCLING INVESTMENT FORUMS LOCATE FUNDING FOR INNOVATIVE BUSINESSES

Recycling has spawned a diversity of entrepreneurs, innovative businesses and products utilizing the wealth of resources discarded in our trash. Investment opportunities in recycling span a wide range of products, services, equipment, and pollution prevention technologies. In order to stimulate investment in recycling-based enterprises, MFF has employed the strategy of Investment Forums.

## WHAT IS AN INVESTMENT FORUM?

While most recycling enterprises have traditionally had access to debt financing, very few have had any to equity funds. Recycling Investment Forums are a strategy used to introduce recycling-based enterprises to investors and potential sources of equity funds.

Investment Forums allow start-up and existing recycling enterprises to make a professional level presentation to investors in an open format that encourages dialogue and one-on-one discussions. These enterprises are screened and selected by a panel of experts in an attempt to ensure that investment-ready firms are making presentations. Similarly, investors who are interested in environmentally and socially responsible projects are sought. Forums also showcase promising enterprises to Recycling Market Development Zone (RMDZ) Administrators. RMDZ Administrators are able to meet with several recycling firms and determine if any may be viable to site in their zone.

MFF has organized two Western Recycling Investment Forums in the past 20 months. The California Integrated Waste Management Board and Environmental Protection Agency, Region IX provided the major funding for the Forums.

### DEBT VS EQUITY

The basic distinction between debt and equity financing is that debt is simply borrowing money and retaining ownership of one's business, while equity involves giving up partial ownership to an investor in order to raise start-up or expansion capital.

## RECYCLING ENTERPRISE HIGHLIGHTS

The Western Recycling Investment Forums showcased some of those businesses with the greatest opportunities for growth and investment. Each is a unique example of how to mine the waste stream for resources to manufacture useful and profitable products. Here are some of the diverse enterprises still seeking equity investment:

**1. FlexShake™** is a roofing material resembling antique slate, made from used tires. It is the most durable roofing product ever developed and has been enthusiastically received by the roofing and insurance industry. It is competitively priced to compete with wood shakes and concrete tile.

**2. Osborne Enterprises** designs and builds a pollution prevention system that continuously eliminates contamination from industrial fluids such as oil or coolant. These systems remove contaminants at their source, thus maintaining the fluids in a new or better than new condition. This method cost-effectively eliminates the generation of hazardous industrial waste, protects the environment and reduces resource consumption. Manufacturers benefit because operating costs incurred when managing contaminated industrial fluids are reduced. These costs not only include fluid replacement costs, but also machine downtime, employee health problems, and treatment or disposal problems.

**3. Itronics Inc.** has developed an innovative recycling technology to remove almost 100% of silver and other heavy metals from photographic development liquids. The remaining detoxified fluid is converted into a full line of multi-nutrient liquid fertilizer.

Untreated photographic chemicals are toxic and environmentally haz-

ardous and their disposal is strictly regulated. Photographic chemicals flushed down drains find their way into rivers and streams where even minute quantities are harmful to fish eggs and embryos.

**4. Applied Distribution Resources (ADR)** recycles nylon waste into high-performance products that replace hardwoods and other materials. The automotive, carpet, and other industries produce millions of tons of nylon waste, yet no significant amount is being recycled. Nylon's attributes—high strength, durability, non-toxicity, recyclability, fire-safety—remain underutilized. ADR has identified the shipping container industry as a niche whose products demand the versatility nylon has to offer. ADR's first product is a durable, recyclable nylon pallet. Pallet and crate production is the biggest consumer of hardwood lumber in the world, and nylon is the only plastic versatile enough to replace hardwood.

**5. ABF Technologies** has designed an automotive machine that recovers used fluid from brake systems while re-filling them with new fluid. This closed-loop system significantly reduces the technician's and the environment's exposure to brake fluid, a very hazardous material. The recovery process also makes recycling the fluid economically feasible, reducing demand for new fluid. Nearly 14 million gallons of brake fluid is produced in the United States each year, but the EPA can account for only 3% of the waste.

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MFF has booklets containing summaries of each enterprise. A third Western Recycling Investment Forum is scheduled to take place later this year.

## A FLURRY OF STAFF CHANGES

The past year has seen many changes in MFF's staff. Jeanne Trombly left MFF in March of 2000 in order to devote full attention to her Fiber Futures project. This new non-profit environmental consulting group is striving to catalyze the use of agricultural residues and other tree-free fibers in products such as pulp & paper, building materials and textiles. For more information, visit [www.fiberfutures.org](http://www.fiberfutures.org). Steve Sherman has replaced Jeanne as the Revolving Loan Fund Administrator. He has 13 years of experience in composting and recycling program development, including nine years as owner of Applied Compost Consulting.

April of last year saw the departure of another dedi-

cated staffer, Jessica Cezniak. She left MFF to join Mann Consulting as a computer consultant. Simon Walker is the most recent addition to the team, filling the shoes of Erica Linson as Resources Coordinator. Erica is moving on to pursue a Masters degree at the California Institute of Integral Studies. Best of luck, Erica!

In other good news, Dave Hanchett, Environmental Economic Development Associate, is extending his AmeriCorps VISTA term of service at MFF! He has been instrumental in assisting with the expansion of Community Woodworks and will continue with the project through the end of May.

## GRANTS (continued from page 2)

**ERSCH RECYCLED MILLWORKS** specializes in interior and exterior wood finish work and replication of historical architectural details, using recycled or sustainably harvested wood whenever design and budgets allow. This operation received \$5,000 to develop product prototypes using reclaimed wood and to write a marketing plan for these products. The initial products include

tables and architectural grade interior and exterior doors. Research for the business plan is still being conducted. However, Ersch Millworks recently re-located to the same facility as the Community Woodworks mill (see front page). This co-location is beneficial to both parties, and Ersch Millworks has an abundant supply of recycled lumber at its disposal.



**Materials for the Future Foundation**  
P.O. Box 29091  
San Francisco, CA 94129-0091  
(415)561-6530  
[mff@igc.org](mailto:mff@igc.org)    [www.materials4future.org](http://www.materials4future.org)

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