

U.S. EPA, Region 9
Grant X-999-696-01-1

Executive Summary

The Materials for the Future Foundation (MFF) is a unique organization with a mission to marry the economic development goals of job creation and local empowerment with the environmental goal of natural resource conservation through reuse and recycling of recovered materials. In August 1997 MFF entered a contract with the U.S. EPA Region 9 to deconstruct buildings at closing military bases in the San Francisco Bay Area. This project, funded under the EPA's Source Reduction and Recycling Initiative for the U.S. Climate Change Action Plan, intended to remove from structures valuable materials that can be reused, providing landfill diversion, job training and employment opportunities, and greenhouse gas reductions. The overall goal of this enterprise was to demonstrate that recovered materials enterprises are a sustainable and practical community development approach that can be employed in the conversion of military bases to civilian use.

This goal has three project specific targets:

1. Deconstruct structures in the San Francisco Bay Area, including the closing military bases, by developing partnerships with local government, the military, local reuse authorities, and community organizers.
2. Encourage the development of value-adding reuse enterprises using deconstructed materials, especially wood.
3. Document the results of the project in ways that are instructive to other organizations

Toward this aim, MFF organized deconstruction projects at three Bay Area military installations: the Naval Air Station Alameda, the Port of Oakland (former Fleet Industrial Supply Center), and the Hunters Point Naval Shipyard. MFF partnered with several organizations during these projects, including the Center for Economic Conversion, the National Economic Development and Law Center, and local community-based deconstruction and reuse organizations.

Due to the highly political nature of base conversion and the exorbitant cost of redevelopment, the destruction projects on two closing bases (Naval Air Station Alameda and Hunters Point Naval Shipyard) were extremely slow to produce results. Because of this the workplan was altered to expand the scope of the contract to deconstruction projects not located on military bases. This expansion of the grant's scope avoided the difficulties linked to base conversion and allowed for completion of the project deliverables in a timely manner.

Under this expansion MFF re-granted funds to the following community-based organizations working on deconstruction projects: BOSS Enterprises, North Fork Community Development Council, San Francisco Community Recyclers and Redwood Community Action Agency. In addition, MFF provided one grant to a community organization to facilitate reuse of wood reclaimed through deconstruction. This organization was Community Woodworks.

The outcomes and best practices of these five community-based enterprises funded through the grant were documented in a series of case studies. Each of the five documents focuses on a different method for approaching deconstruction. A ten-minute video on the benefits of deconstruction was also produced and distributed to various interested agencies.

Highlights of lessons learned over the course of this grant include:

- While lengthy base closure timelines can facilitate the time-consuming process of deconstruction, it can be difficult to reap the benefit of this time due to a lack of contractual precedents. It is important for community agencies to advocate for the inclusion of deconstruction in the base closure process.
- Rather than focusing on 100% deconstruction of a building, it is most often beneficial to combine these reuse efforts with traditional demolition. An experienced demolition contractor can assist in assessing which components are worth salvaging.
- The salvage value of recovered materials rarely exceeds the cost of building deconstruction. For this reason, valued-added lumber products can increase of wood salvaged through deconstruction, helping sustain a market for reclaimed materials.

Measuring Success	
number of buildings deconstructed	12 complete
	5 partial
materials reclaimed	484 tons lumber (approx. 484,000 board ft.)
	103 tons steel
jobs/training opportunities	182 individuals trained/employed
greenhouse gas reduction	892 metric tons

Aside from the success listed above, MFF provided financial support to six deconstruction agencies through the EPA grant. Another nine organizations received technical assistance and support for deconstruction-related projects.

Also, greenhouse gas emissions were significantly reduced through the waste diversion and materials reuse that resulted from this process. Deconstruction projects sponsored through MFF's re-granting process reduced these emissions by 892 metric tons carbon equivalent, roughly the same amount as 675 cars.

With its wealth of information, this project serves as a national model for deconstruction and materials reuse both at closing military bases and in the community at large. Deconstruction has proven to be a popular and effective alternative to traditional demolition in the San Francisco Bay Area and Northern California. And while there were substantial setbacks to initiating deconstruction projects on closing military bases, it is still a viable option. Significant support from the community, government and private businesses is needed to encourage authorities to pursue deconstruction as a part of base reuse plans.