United States Environmental Protection Agency

Deconstruction and Building Material Reuse in Former Textile Mills

Sustainability Pilot Background

EPA's Brownfields Sustainability Pilots provide technical assistance to assist communities in achieving greener, more sustainable results when redeveloping brownfields. These pilots also provide models for other communities across the country.

EPA provided the City of Valley, Alabama with technical assistance to create an inventory tool to track materials that can be recycled or reused from the deconstruction of the Langdale Mill. In addition to the inventory tool, the EPA technical assistance provided two onsite field inventory evaluations which yielded quantities and estimated values of deconstructed materials. The project provided a sustainable solution to traditional demolition by recycling or reusing valuable building materials inherent in abandoned mill structures in the area.

Langdale Mill Background

The Langdale Mill operated in Valley from 1860 to the late 1990s as a textile manufacturing facility; it employed many local residents. When the mill ceased operations, it left the community without a major economic engine. In addition, the community faced the challenge of cleaning up and redeveloping the vacant property.

Beginning in 1999, the city held design charrettes to determine a suitable and sustainable reuse for the mill. In response to the design charrettes, the city recognized the need to evaluate the environmental conditions of the site and clean up any identified contamination. In 2007 and 2008, the City of Valley applied for and received an EPA Brownfields Assessment grant and two EPA Brownfields Cleanup grants to address contamination issues at the Langdale Mill and other mills along the Chattahoochee River. A Visioning Session held by the city and neighboring "up-river" communities of Lannett, Alabama and Westpoint, Georgia resulted in plans to create a River Canoe Trail that joins an historic Native American relic site with Langdale Mill.

Project Highlights

EPA's technical assistance to the City of Valley included the development of a recyclable and reusable material inventory tool, an evaluation of the quality of building materials, and an estimate of the value of recovered materials. These analyses provided the city with tools and information it could use to move forward with the deconstruction and sustainable redevelopment of the Langdale Mill and address other mill redevelopment projects in the area. The Langdale Mill inventory tool focused on five key materials:

- Lumber
- Metal for Scrap or Reuse
- Brick
- Concrete
- Other Items for Potential Reuse in the Proposed Redevelopment

The inventory demonstrated that an estimated 109,000 board feet of lumber, 290,000 pounds of metal, and 63,000 bricks could be recovered for recycling or reuse. In combination, these materials have an estimated value of $150,000. In addition to estimating the costs, the technical assistance team provided alternate reuse scenarios for the deconstructed materials. For example, the lumber, bricks, doors and concrete can be used in the redevelopment of the site as well as to preserve the mill's rich industrial history.

Challenges and Lessons Learned

Evaluating Current Market Demand for Deconstruction Materials

Local salvage vendors assisted in estimating costs and values, quantity conversion factors, and units of recovered materials.

Securing Additional Funding and Offsetting the Cost of Deconstruction

The City of Valley needs additional funding to carry out the technical assistance team's recommendations and is working with the regional development group to identify additional grant opportunities to fund deconstruction. Selling and recycling recovered materials could offset part of the funding needed for deconstruction.

A view of Langdale Mill.

The city incorporated the recommendations of the technical assistance team into the redevelopment plan for the site and is exploring other funding sources for its redevelopment efforts. The city initiated a Request for Proposal process to identify a contractor to deconstruct and redevelop the site according to the specified redevelopment plan. The redevelopment plan was developed, using both USDA Rural Development Funds and Appalachian Regional Commission Funds, and includes a community conference center, office, art galleries, shops, and a community garden. To date, six jobs were created in the office space of Langdale Mill.

Sources for Additional Information

For more information on this project, please see the full Langdale Mill technical assistance report and deconstruction inventory tool at:

http://epa.gov/brownfields/sustain_plts/reports/langdale.pdf

Regional Contact Information

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