

# SUNSHARES RECYCLING, INC.

*Durham, North Carolina*

Since its inception in 1980, SunShares has grown from a small, local nonprofit organization with two staff members and an annual budget of \$40,000 to a nationally recognized leader in the field of resource recovery, employing 62 people and generating \$3 million annually for the local economy.

SunShares' mission is to help people use the earth's resources in a more sustainable, efficient, and healthful manner. It provides opportunities for communities and neighborhoods to recycle, reduce waste, conserve energy and water, and use more renewable resources.

SunShares' programs maximize citizen involvement as volunteers and participants in community-building projects. It partners with individuals, local and regional government agencies, corporations, small businesses and other organizations to facilitate the transition of the "Research Triangle" region (including the cities of Durham, Raleigh and Chapel Hill) toward a more sustainable economy. SunShares works to facilitate that transition through education, demonstration, and policy making activities, designed to involve the citizens and institutions of the region.

## **Building the Foundation**

In 1979, the Energy Information Office (EIO) was founded with proceeds from a newspaper recycling project established by the Council of Garden Clubs and the City of Durham Sanitation Department. Newspaper revenues allowed EIO, a non-profit organization, to offer energy conservation information and winterization services to the general public. In 1982, SunShares, a grassroots campaign to build low-cost solar heaters, was founded as a project of EIO. SunShares then merged with EIO to form a single non-profit dedicated to promoting recycling, energy efficiency and solar energy.

The experience and contacts from these organizing efforts, combined with the resources of ECOS, an established local recycling effort, enabled the new SunShares to win long-term recycling contracts in a three county area, with the City of Durham, the Town of Cary, Durham County and the Orange Community Recycling Program.

Partial funding for SunShares' recycling programs comes from revenues generated by landfill tipping fees and solid waste collection fees. The revenue that SunShares makes from the sale of recyclables partially off-sets program costs. As a non-profit organization, SunShares also receives grants to investigate issues and carry out programs such as energy efficiency, water conservation, and market development for recyclable materials such as mixed paper. Individual and corporate partnerships help to support outreach and education programs.

## **Leader in Recycling Technology**

SunShares' recycling programs now include 33 drop-off sites, serving over 300,000 residents in Durham and Orange Counties; as well as curbside collections from 43,000 homes in Cary, Durham and Orange Counties. Commercial and fee-for-service programs collect from over 200 area businesses.

SunShares is able to collect and process the materials cost effectively because of its unique collection system, recycling facility, and community participation. From curbside trucks, to drop-off bins, to the expander curbside container attachment—for which SunShares holds the patent—SunShares has been a leader in developing new designs for effective recycling. These designs have been adopted in many areas of North Carolina and other states, helping to make recycling more efficient and cost effective.

SunShares' community education programs support awareness of the "Reduce, Reuse, Recycle" concept. Broad public participation in separation of recyclable materials enables SunShares to maintain the integrity of the materials it collects and helps to insure stable markets and maximum convertibility of new products.

## **SunShares Research and Product Development**

Recycling is only a part of what SunShares is about. SunShares' current research and development focus is on reducing waste at the source of generation, locating stable market uses for problematic recyclables, and combining organic portions of the waste stream together to produce compost.

SunShares practices a team approach to decision making, analyzing, with Board, staff, and client communities, strategies that will result in long-term economic, social and environmental benefits for the region.

A good example is the process by which "Bull Durt" has been developed. Mixed paper constitutes approximately 20 percent of the total waste stream being landfilled in this country. With funding from the North Carolina Office of Waste Reduction and the Environmental Protection Agency, SunShares and its local partners, the City of Durham and Durham County, worked for three years to research and test this compost product that combines hard to recycle mixed paper with treated municipal sludge. At the same time, a public education campaign introduced "Bull Durt" to the public, answering questions related to product safety and applicability. SunShares, the City of Durham, and Durham County are in the process of establishing ongoing production of Bull Durt, providing a ready bulking agent for sludge treatment processes as well as a local, stable market for mixed paper.

As part of a team approach, SunShares engages the community in research on "next steps" for waste reduction to determine actions people are most interested in pursuing. Results include: reduction of junk mail, alternatives to household toxins, and the re-use of items. SunShares directs information and educational materials to the community on these topics and on how to make source reduction and backyard composting familiar behavior in our residential and business communities.

## **Sunshares' Energy Programs**

Energy saving projects are an important part of SunShares' operations. Since 1980, Sunshares has trained 2,000 residents to build solar collectors and weatherize their homes. Together with the North Carolina Alternative Energy Corporation, the Duke Endowment, and hundreds of volunteers, they have retrofitted over 600 churches and non-profits, to cut utility costs by \$500,000 since 1987.

The new "Resourceful Buildings" program is SunShares' expanded energy program. SunShares has recognized a need for an integrated approach that goes beyond energy efficiency to address indoor air pollution and the reduction of solid waste and toxins. The new program focuses on making buildings healthy, safe, economical and comfortable. Staff members provide assistance in increasing energy and water conservation, reducing building health problems dealing with issues such as lead, carbon monoxide and moisture, and incorporating waste reduction activities.

## Sunshares' Education Programs

SunShares has partnered with the North Carolina Museum of Life and Science and the North Carolina Cooperative Extension Service to locate three permanent backyard composting exhibits in Durham. Several methods of composting are displayed, and regularly scheduled workshops on backyard composting are given free of charge to community residents. SunShares has also provided "vermicomposting" workshops, bins and technical support to 129 teachers in Durham Public Schools.

SunShares provides in-depth recycling and waste reduction information. A quarterly newsletter is circulated to 102,000 households in the region; the more in-depth *SunSpot* publication is sent to members, activists and officials; and environmental programs are promoted through the media. Other education activities include:

- **Earth Day Celebrations**—Since 1990, SunShares has worked with corporate sponsors and the City of Durham to bring together dozens of environmental and conservation organizations and entertainers with thousands of citizens to inspire, educate and celebrate.
- **The Scrap Exchange**—SunShares provided early institutional and financial support for this organization that provides teachers, artists, children and others with scrap industrial materials and instruction for creative reuse.
- **The Block Leader Program**—When SunShares expanded curbside recycling to the citizens of Durham and Cary, hundreds of volunteers in each neighborhood were recruited to talk to their neighbors about the new program.
- **The Schools Program**—SunShares has offered recycling and waste reduction programs and tours for students since 1988. SunShares provides recycling collection services to Durham Public Schools and works through Environmental Educators of North Carolina, the NC Cooperative Extension Service, other organizations, school systems and individuals to assure comprehensive environmental education programs in the Triangle.

## Recycling Challenges

A barrier to recycling and energy conservation efforts in general is that current governmental and corporate policies often do not consider environmental impacts or conservation opportunities. Early on, SunShares realized the importance of

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**Scope:** Local/state, urban/rural  
**Inception Date:** September 1980  
**Participants:** Urban and rural residents, low-income housing communities, schools, businesses, churches  
**Project type:** Recycling, energy efficiency, waste reduction, water conservation, public education  
**Methods used:** Demonstration projects, education, programs maximizing citizen involvement as volunteers and participants in community building projects  
**Lessons learned:** Strong leadership and vision spurred initial activity in the community. SunShares' history and reputation in the community inspired the public trust and the building of institutional relationships necessary to expand activities and access opportunities.

policy development and advocacy in the recyclable materials marketing arena. Between 1988, when SunShares began the Durham Recycles program, and 1993, the price paid for recycled commodities dropped nearly 50 percent on average. To reverse this trend, SunShares realized that governmental and corporate policies for retooling the industrial infrastructure to make use of recycled materials needed to be put into place (virgin material use is still subsidized and preferred). SunShares became active in national policy development through the Recycling Advisory Council's Market Development Committee to advocate federal legislation and infrastructure changes to facilitate the transition to materials reuse and recycling. These efforts paid off in increased governmental mandates for recycled products that brought prices back up and increased production of recycled products and the creation of jobs. Initial policy work by SunShares has focused on those areas in which new or revised

policies can foster the next steps in the sustainable transition.

—Community Sustainability Resource Institute



## UPDATE

December 1997

Sunshares Recycling has experienced some changes over the last two years. The organization has narrowed its focus. The current emphasis is on providing service and maintaining their curbside recycling contracts with the city of Durham and with Durham and Orange Counties. The organization concluded that this approach was necessary to overcome past financial reverses and insure the survival of the organization.

Other outside factors have contributed to the retrenchment. At the present time, the organization has no outside grant funds for outreach, research or demonstration efforts. The city of Durham has suspended its participation in the innovative "Bull Dirt" program, due to a lack of space at the current transfer station. Lack of support and a need to concentrate on recycling activities has resulted in a suspension of efforts in other areas, such as the promotion of energy efficiency, water conservation and composting.

As Sunshares has been working to maintain its viability, the organization has had some successes. Their annual revenues have been maintained at around \$3 million and they have increased the paid staff from 60 to 72 persons. The Sunshares Newsletter continues to be published quarterly as an insert in the Durham Herald, with circulation to about 100,000 households. Outreach and education programs related specifically to recycling have continued. Contacts are regularly made with the elementary schools, and the organization is represented at local fairs and expositions. They have also begun a new program, conducting "Fun Days" recycling celebrations at public housing sites in their service area.

The staff of Sunshares is very conscious of the current limitations on their activities with regard to promoting sustainability. They have expressed a strong desire and intent to resume their efforts in this area, once the present reorganization has been successfully completed.

—Community Sustainability Resource Institute