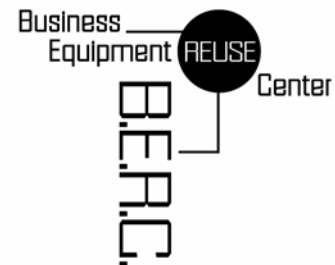


Business Equipment Reuse Center Solid Waste Authority of Palm Beach County

**Final Report
IGI-10**

April 28, 2004



**Solid Waste Authority of Palm Beach County
Report of Progress, June 2001 – April 2004**

Background

The Problem: Nationally, the infrastructure to manage the vast quantity of obsolete and unwanted business equipment currently entering the waste stream does not exist [EPA's Waste Characterization Studies; R.W. Beck's Waste Characterization Study; and the National Safety Council's Electronics Recycling Initiative report]. The amount of these waste materials generated continues to grow, adding to the immediacy of finding useful alternatives to its disposal. At the time of the original grant proposal, there were proven and effective options for the environmentally responsible and economically sensible management of these materials—as had been evidenced by such reuse initiatives as The Surplus Exchange in Kansas City, Community Resource Bank in Baltimore, and Community Resource Center in Cincinnati. These centers had facilitated the donation of business equipment from businesses in their community to local non-profit organizations for many years.

In Palm Beach County, there was a dramatic shortfall between the discards of equipment from local businesses and the infrastructure to get those materials reused. At the time, the only organized effort to manage the obsolete equipment was being conducted on a very small scale by the SWA. Unfortunately, that system was very reactive, as a result of the limited resources available to this program, meaning only a small fraction of the business equipment available was being managed by the SWA. The following three examples provided evidence that a need for the BEREC program existed:

- During a waste audit conducted by the SWA of the South Florida Water Management District (SFWMD), the SWA learned that the SFWMD was switching from wooden furniture to modular, and there was no outlet for the large amount of furniture being discarded.
- Blue Lake Corporate Center (formerly IBM headquarters) had massive quantities of high-quality dry erase boards, push carts, projector screens and shelving that they were prepared to landfill in order to expedite their construction projects.

The Solution: According to 1998 census data, there were approximately 32,000 businesses in Palm Beach County. All were, or had the potential to become, generators of commercial solid waste in the form of outdated furniture, computers, office supplies, and other business equipment that no longer met their needs. At the same time, there were estimated 1,800-2,200 non-profit organizations in Palm Beach County that required these same items to run their daily operations.

Many communities struggle to move beyond recycling programs to incorporate reuse into their solid waste programming. Even fewer choose to tackle the challenges of bulky, mixed material and electronic waste streams. Though genuine challenges exist in the collection, transportation, handling, refurbishment, warehousing and distribution of these targeted materials, the SWA's resources, unique partners, history of success, and strong educational component, provided the experience and expertise for solving these challenges. Furthermore, the SWA drew on the larger perspective and experiences of others successful in the reuse field through the Reuse Development Organization, Inc. (ReDO).

The Solid Waste Authority of Palm Beach County (SWA) initiated the Business Equipment Reuse Center (BEREC) in June 2001 to address the need for a disposal alternative for large, bulky,

non-recyclable business equipment that was being generated as a result of the closing of several major businesses in Palm Beach County.

Perfectly good and usable desks, filing cabinets, chairs, computers, and many other items typically found in a business setting, were being tossed in dumpsters and sent to the county landfill or incinerator. At the same time, local non-profit organizations needed similar equipment and were spending thousands of dollars on desks, filing cabinets, tables, chairs, and may other types of office furniture. SWA initiated an innovative solution to help meet local environmental and social objectives, by being the conduit for getting office furniture from those who no longer needed it, and redistributing it to those who could still use it.

Objectives and Goals

The BERC is a program that specifically targets items that are not currently suitable by any other SWA program. Because of the nature of office furniture, there is typically no recycling option available, because it consists of mixed wood, plastic and metal parts that could not be cost-effectively disassembled and recycled. Often, even if an item was primarily wood, the stain or painted finish on the item would make it unsuitable for composting. Therefore the material, prior to the BERC, was always destined for disposal.

In creating the BERC, the SWA demonstrated their commitment to the United States Environmental Protection Agency's (EPA) solid waste management hierarchy, and focused on waste prevention and reuse as a means for management, as an alternative to disposal. This is a rare opportunity for SWA to support waste prevention and reuse and show its leadership in the state to move beyond just recycling and composting.

The BERC sought to match the materials available with the materials needed to meet several community objectives:

- 1) To preserve the environment by keeping unwanted and obsolete business equipment and supplies out of the waste stream (desks, chairs, tables, filing cabinets, electronics, etc.).
- 2) To benefit non-profit organizations by providing them with reusable business furniture and equipment, thus providing them cost-savings on the purchase of new equipment, and allowing them to utilize their limited revenues on the clients they serve and programs they run.
- 3) To expand the program over time to utilize the resources and expertise from the BERC to provide educational and occupational programs to the community.

Innovation

The BERC was the first of its kind in Florida and one of only a few of its kind across the country. The BERC did experience challenges as a result of its innovation, as no two business equipment reuse centers across the country operate in exactly the same manner. However, the BERC was able to learn from the experiences of other organizations, how they track materials, how they develop pick-up schedules, and other issues that were beneficial to the start-up of the BERC.

This innovative pilot project was able to prove that the SWA can divert significant amounts of bulky, non-recyclable materials from the waste stream. It was also able to prove that businesses are willing to donate equipment when they have it in excess, as opposed to throwing it away. This project also demonstrated that there is tremendous need for this equipment by the non-profit organizations when there is an infrastructure for managing it.

The innovation proved successful in many ways. Other communities would be encouraged to use the BERC model to divert business equipment and fill a local, social need.

Audience

There are two primary audiences of the BERC: the businesses, institutions and others who generated excess office and business equipment as a result of downsizing, office closings or renovations; and the non-profit organizations who serve as recipients to the office and business equipment to serve their needs for furniture, computers, filing cabinets and more.

The SWA worked hard to find many ways to reach and engage each audience group, including a series of direct mailers, information in local business journals and newspapers, a presence on local television news, and through other outreach opportunities and events.

SWA conducted a stakeholder meeting and received significant feedback prior to the development of the BERC about the needs of private business and non-profits. In addition, focus groups also helped the BERC to determine the needs to be filled, types of items needed and more.

Throughout the project, SWA reached out to business donors by, for example, using a mailing list comprised of standard industry codes (SIC) for the county equated to a mailing list of 50,000 businesses. The outreach to local non-profits was by marketing directly to them after acquiring on different occasions, mailing lists from organizations such as Guidestar and sorting for specific standard industry codes. This proved very useful in getting more and more non-profit organizations involved in the program, therefore being able to move more material through the center. SWA also reached out to non-profits across the state to be able to redistribute even more items, by working with the Florida Association of Non-profits

Formal Presentations and Press

Because of the unique nature of the BERC, there were numerous presentations made about the program, and many articles and local and regional news stories covering the success of the program.

Presentations

- Presented information about the BERC during a national audience at the National Recycling Congress in Seattle, Washington, on January 13, 2002, as part of a half-day national reuse workshop demonstrating model reuse programs sponsored by the Reuse Development Organization, Inc. (ReDO).
- Presented information about the BERC before colleagues at the Southern Waste Information Exchange (SWIX) Electronic Waste Workshop on March 26, 2002, in Orlando.
- Presented information about the BERC before colleagues at the SWIX Reuse Workshop on March 27, 2002, in Orlando.
- Presented information about the BERC at the Pollution Prevention Conference in August 2002 in Miami Beach;
- Presented information about the BERC at the Solid Waste Association of North America (SWANA) Conference in Naples.
- Presented information about the BERC at the Palm Beach Pollution Prevention Coalition meeting.
- Submitted to Recycle Florida Today (RFT) information about the BERC for consideration of an award for innovation and success in recycling, and was awarded the honor by RFT during their annual conference.
- Attended and presented a case study about the BERC program at the National Waste Exchange Conference in Cincinnati, Ohio, during April 23 - 25, 2003.

- Submitted an application for consideration for an award for Innovation in American Government, sponsored by the Institute for Government Innovation at the John F. Kennedy School of Government at Harvard University.

Press

- WPTV Channel 5 covered the first stakeholder meeting and ran a story on the evening news cast.
- Newspaper article promoting the BERC ran in the Sun Sentinel newspaper.
- Newspaper article promoting BERC ran in Business Watch in September 2001
- Sponsored a segment entitled “Florida’s Future” on WPTV, a local NBC affiliate, about the BERC as part of the 5 o’clock evening news.
- Newspaper article in the “Notables Section” of the Palm Beach Post featured the BERC receiving a large donation from a county business.
- Article in South Florida Business Report
- News story regarding recycling of electronics through the BERC aired on WPTV Channel 5.

Equipment and Services

Specialized equipment was purchased for the BERC in order to assist with the collection, handling and management of the large, bulky items involved in the program:

- Forklift (rented, and purchased as in-kind) – used to move items around the warehouse and load and unload the box truck
- Box Truck (in-kind) – used to pick up and transport material that a donor was unable to drop off.
- Pallet Jacks (in-kind) – purchased two pallet jacks to assist in the loading and unloading of materials from the truck and in the warehouse.
- Stairclimber Dolly – used to assist in the movement of large, bulky items, such as large desks, large tables, filing cabinets and more.
- Desk Dolly – used for securing moving desks and other bulky items.
- Panel Truck – used to assist in movement of items in the warehouse.
- Dollies/Hand Truck (in-kind and grant purchased) – used to assist in the movement of items that were less bulky but too heavy for a man to carry alone.
- Carts (in-kind) – used to assist in the movement of items in the warehouse.
- Scale (in-kind) – used to measure weights of items coming into warehouse to more accurately measure waste diversion.

In addition, specialized tools were purchased to assist the Palm Beach County Sheriff’s Department Drug Farm with their efforts to refurbish computers and refinish and repair office furniture.

Cooperative Recycling Effort

While the BERC was not a cooperative project with other Florida counties, the success of the BERC has been very dependent upon its ability to partner with local organizations and agencies. SWA partnered with Palm Beach Community College who found that it was more cost-effective, efficient and effective for them to donate their excess inventory than to auction it off. They also partnered with Florida Atlantic University who used the BERC instead of auctions to get rid of office equipment. Other major community partners included Florida Power & Light and Pratt Whitney.

Probably the most significant partnership was that with the Palm Beach County Sheriff’s Department Drug Farm, a boot-camp style rehabilitation program for those otherwise destined for costly, long term incarceration. The Drug Farm residents were able to develop skills, learn to use

specialized woodworking equipment, refurbish office furniture and computers, to enable more material to be reused than otherwise possible. Sometimes, they simply replaced a broken handle, while in other instances, they refinished an entire desk or rebuilt an entire computer. Additionally, they provided valuable assistance through labor and support in the warehouse environment.

Project Timeline

Business Planning – June – December 2001

- Research and Analysis – June – October 2001
- Business Plan Completion – December 2001
- Stakeholder Meeting - August 2001
- Focus Group Meetings – December 2001

BERC Set up

- Staff Recruitment, Hiring & Training –
 - BERC Manager - January 2002
 - BERC Staff – June 2002, June 2003
- Equipment Needs – November 2001 – February 2002
- Developed Tracking/Inventory Systems – May - September 2002
- Standard Operating Procedure Document - September 2002

Public Education and Outreach

- Donations/Donor Campaign – October 2001 – March 2002, October 2002, July 2003, September 2003
- Non-profit Marketing – July 2002, December 2002, February 2003, April 2003, July 2003
- Partnership Development – August 2001, November 2001, October 2002, January 2003
- General Community Education and Outreach – August 2001, September 2002, February 2003

BERC Implementation

- Begin Donation Pick-ups – 1999
- Work with Sheriff's Department on Refurbishing Equipment – 1999
- Tools – January 2003

Statewide Education/Technology Transfer - January 2002, March 2002, August 2002, April 2003

Program Evaluation and Revision – October 2001 – November 2001, July 2002

Problems Encountered During Implementation

Quality of Donations

General Equipment - BERC began its operation by accepting the good (desirable and usable by the non-profits) with the bad (damaged or inappropriate) donations which resulted in some materials having to be disposed. This was costly in terms of resources and disposal costs, but also inconsistent with the mission of the BERC. To resolve this problem, staff incorporated a better and more detailed screening process and all staff, administration and collection, were trained on how to screen materials. In addition, as of January 2001, all personnel, disposal and other costs were closely tracked to better understand the true cost of running the program.

Electronics - BERC also accepts electronics that are not reusable, and generates electronic scrap that is not reusable from the Drug Farm refurbishing program (they take in ten computers and make four good computers from them, leaving them with the leftover scrap of six computers). In order to remedy this challenge, SWA put out a bid for electronics recycling services and received competitive bids for services (as there is more competition for this service now than when the program began). The bidding allows SWA and the BERC to reduce their total cost of managing this material by getting a contractor to pay for some materials (hard-drives), while charging for others (CRT's/monitors). The BERC has recycled approximately 107,288 pounds of electronic equipment that was deemed not usable in the BERC program. This was accomplished through contacting electronics recyclers that were certified by FDEP and located in the state of Florida.

Accurate Waste Diversion Measurement

The BERC staff was having difficulty measuring all of the items coming through the center. SWA was using estimation sheets, however not all material was reflected on these forms. SWA purchased a scale to more accurately measure the amount of material being diverted from the landfill. The SWA also developed a weight-to-volume conversion matrix to determine landfill space conservation.

Supply/Demand

Because of the volume of materials that flows through the BERC and the incessant and unpredictable nature of donation, SWA was faced with the challenge of matching demand for equipment from the BERC with the supply. This resulted from the successful direct mail piece to potential donors that generated significant influx in donations. To remedy this issue, SWA was able to substantially increase the number of new non-profit organizations utilizing the BERC. In addition, SWA is reaching out further to non-profits in surrounding counties to ensure adequate demand for materials moving through the center as it continues to grow.

Employee Injury

The SWA realized that the general Standard Operating Procedures (SOP) documents developed for other SWA activities, such as solid waste collection, were not adequate for the specialized work at the BERC. Therefore, the SWA had an SOP document developed specifically for the BERC activities which is now used by all BERC employees and volunteers.

Facility Needs

The BERC is located at an existing SWA warehouse facility. Because of the limited space and lack of employee accommodations at this facility, distribution of material is limited. Bi-weekly release events are scheduled by appointment with the non-profits to distribute business equipment. Plans are underway to secure a larger, more adequate facility with office and warehouse space. When the new facility opens, the BERC will be open for business on a regularly scheduled basis, thereby accommodating larger volumes of material and redistributing to a greater number of non-profits in the community.

How Objectives and Goals Were Met

The objectives and goals of the BERC were to match donors of business equipment with non-profits who needed the same type of equipment. From day one of the BERC program, they were successful in generating reusable materials and in diverting those materials with not for profit organizations who could use the items. By doing so, SWA and the BERC met the environmental, social and economic goals of the program as envisioned.

Demonstration of Processes Not Common in Florida

Though the idea of a reuse center is not new and business equipment reuse programs have been operated across the country with success, the BERC provides the first comprehensive opportunity in the state of Florida to take bulky discards from the waste stream, especially from large waste generating businesses in the county, and funnel them to meet non-profit community needs. In this way, waste reduction meets business development meets community development to provide a win-win-win solution to the bulky goods disposal challenge facing Florida communities today.

What makes the BERC program most unique is its (1) cooperation between unique public/private partners and (2) development of processes to tackle problematic materials, such as business equipment and electronics.

Problematic Materials: The Center targets and diverts from the waste stream general business equipment and supplies including reusable office furniture, computers and other electronics, warehouse fixtures, and office supplies. The collection of these materials is often avoided by many communities because of the difficulty in collection, processing and development of end-markets for their use. These items are bulky, contain mixed materials, don't have a ready market in the same way recyclables do, and require specialized training, equipment, and vehicles for handling. In the instance of the electronics collected—computers, peripherals, and other business electronics—a variety of specific challenges are presented by the handling of these fragile items that contain lead, mercury, and other hazardous waste materials.

Uncommon Partners: In addition to the uniqueness of the BERC itself, other innovative aspects of this program provided a "first of its kind" in the Country. The BERC created a partnership between for-profit businesses and charity organizations. In addition, by virtue of its daily operations, the BERC provides the community with opportunities for job and vocational training, as well as programs that promote rehabilitation and social change. An example of how this occurs exists in the SWA's partnership with the Palm Beach County Sheriff's Department.

Prior to the grant period, the Sheriff's office had, on a pilot basis, taken a few pieces of office equipment destined for the landfill, and worked with residents of the **Drug Farm** to refurbish these items and make them usable again. The Drug Farm is a "boot camp" style rehabilitation facility, which instills discipline and respect, and simultaneously provides skills to residents so they can seek gainful employment in the outside world once released. The partnership with the BERC expanded the Farm's training capabilities by establishing a system for refurbishing repairable equipment at the Farm, then equipment is sent back to the BERC for redistribution. Providing this value-added process enabled the SWA to increase the amount of reusable items, and further keep bulky non-recyclable desks, chairs, tables and other items out of the landfill.

After two years, the BERC program has been proven and is ready for full implementation. The SWA believes the BERC provides a significant value to the community by diverting waste for reuse, but provides societal benefits as well. SWA prides itself on efficient, effective, diverse and innovative programming to meet its mission of waste management. The BERC affords us the opportunity to effectively touch the lives of so many within the county who are in need.

Increased Diversion from Disposal

Prior to the BERC, there was no cost-effective or efficient means of handling business equipment. Development of the BERC pilot project, having necessary material handling equipment and a dedicated staff and facility, made it possible to divert 1,018,024 pounds or 509.01 tons of material from the SWA landfill and waste-to-energy facility since the inception of the program.

As has been reported throughout the project, the full potential of the BERC's diversion has yet to be realized due to its lack of a permanent and adequate site. Having a full-time warehouse available for both donations and for non-profits to receive materials daily (instead of the current bi-weekly schedule) will result in significantly more equipment to be reused and diverted.

In the original plan, SWA estimated possible waste diversion based on the County's demographics and compared to reuse initiatives in metropolitan areas of similar size. It was estimated that the BERC would result in the following diversion: Year One - 1250 tons (start up and operation); Year Two - 2875 tons; Year Three - 3306 tons. Thereafter, it was estimated that the BERC would maintain at year three levels each year thereafter, or grow up to 15 percent in diversion each year.

Even though the BERC fell short of its waste diversion goal for this project during the grant period, the program is still a success. There is now an established program which has been developed, piloted, revised and put into place. Without a pilot phase that resulted in lessons learned and without working through the "bugs" in the process, policies and programs through the cost-shared grant period, long-term sustainability of the BERC would not have been possible.

Based on this process, staff can more accurately calculate the amount of material that can be diverted through the program. Historically, the BERC diverted 74.97 tons of material in the first year; 215.44_tons of material in the second year; and 173.54_tons to date in the third year. The figure for year three is based on the time frame of the grant period and not representative of a full year.

Transferability

Through statewide and regional education, SWA has made the BERC example available to anyone interested. SWA has also conducted tours of the facility to assist in transferring unique programming information that has led to the success of the BERC. While SWA is not aware of any centers starting up in the state of Florida as a direct result of information provided by BERC, SWA stands prepared to continue to share the BERC model with other Counties and solid waste authorities, the state, and non-profits, and is more than willing to help others where needed in starting up a similar program in their own communities.

How Analysis Led to Improved Project

Since the BERC was an Innovative Project, the program was constantly evaluated and analyzed during its start-up phase. There were models to review, however, each business equipment reuse center operating across the country operates differently. The BERC worked to use the best aspects of all of these centers in developing its own local center in Palm Beach County.

As the program developed, all aspects of the program were analyzed for improvement. Over time, additional personnel and equipment was added, new marketing ideas were tested, new program partners were developed, all leading to an improved BERC project.

SWA cannot compare this project to statewide recycling average since it is a unique project that focuses on reuse, not recycling. In addition, the program is managing generally non-recyclable, bulky materials, and therefore is difficult to compare costs with other programs since there are none similar.

Financial Breakdown of Costs

Because of the innovative nature of this project, SWA was able to acquire a Department of Environmental Protection Innovative Grant for \$199,575 to pilot the project in June 2001. The

grant greatly assisted the SWA in determining whether there was a genuine need for such a program and if the program could work in Palm Beach County.

The total project cost was \$662,412.00. The SWA contributed \$462,837.41 in cash and in-kind contributions in addition to the State grant to make this program a success.

Project Expenditures

See attached report for detail.

Tipping Fees Avoided

Based on the amount of tonnage redistributed by the BERC program, the amount of avoided tipping and processing fees for SWA facilities equates to \$33,085.

Cost/Benefit Ratio

The BERC has, to date, diverted 1,018,024 pounds or 509.01 tons from the landfill and from incineration. This equates to 7,824.63 cubic yards of space that is saved from the landfill as a direct result of the BERC. It is important to evaluate the waste diversion by both tonnage and cubic yards because it demonstrates the actual volume of space potentially taken up by business equipment, and how the BERC actually significantly extends the life of the landfill. This equates to a per capita cost of \$.54 and a cost per ton of \$1,301.14. This cost per ton is reflective of the initial start-up costs associated with operating the BERC program. It is projected that these costs will begin to decrease substantially once a permanent facility is sited which will enable more material to be processed and redistributed.

The BERC program not only diverts solid waste from disposal, but also significant hazardous waste, such as mercury, lead, cadmium, and other toxic materials found in computers and other electronic components. To date, the BERC has diverted 62,453 pounds or 31.22 tons of electronic equipment, keeping hazardous materials out of the waste stream and keeping it in good use.

In addition, diverting these materials helps improve air and water quality, and results in the reduction of greenhouse gas emissions, the gases blamed for climate change, especially through the reuse of wood and metal items. In addition, significant reduction of carbon is also being reduced through wood product reuse.

The BERC program has benefited 848 non-profit organizations to date, from local United Way affiliated agencies to small non-profit organizations to churches and schools. It is estimated that the BERC saved these organizations hundreds of thousands of dollars that would have been spent on office furniture and equipment if the BERC was not available to offer these items for free to the community. This represented more dollars that could be put to use in programs, instead of using limited dollars for office set-up and operation

The BERC has assisted local businesses in Palm Beach by being able to providing an easy, efficient, and effective means of managing the difficult-to-manage category of office equipment. With offices downsizing, consolidating and closing, there has been a significant influx of bulky, non-recyclable office furniture and equipment in the past two years. The BERC helps local businesses save money by avoiding disposal, and instead encourages local businesses to move up the solid waste hierarchy to REUSE! While SWA struggles with ways to encourage waste prevention and reuse before recycling, the BERC offers a cost-effective, efficient alternative.

Environmental Benefits: The BERC addresses the current and anticipated flow of reusable business equipment in Palm Beach County and will provide significant environmental benefits.

- 1) The volume of waste diverted through the BERC is significant for the county, and measures 7,824.63 cubic yards or 509.01 tons to date with potential to increase 15% per year or more once up to full capacity.
- 2) The BERC targets reuse opportunities which are higher on the waste management hierarchy than recycling since it eliminates the environmental impacts of manufacturing new products, e.g., raw material extraction and consumption, air and water pollutants of the manufacturing process, and transportation emissions. Though higher on the waste management hierarchy, few cities have tackled reuse as a method of waste diversion.
- 3) Reuse is an effective means of reducing greenhouse gases linked to global warming, especially those items targeted by this Center. Wood extraction and manufacture of wood products, as well as the disposal of wood products, have been identified by the US EPA as major contributors to CO² and methane, two greenhouse gases. In addition, reuse of wood products promotes less timbering, which in turn results in greater forest sequestration of CO².
- 4) The BERC provides an outlet and reuse opportunity for one of the most difficult and toxic materials in the waste stream—electronics, and especially CRT's—thereby reducing the potential for the development of toxic leachate from the landfill or toxins in incinerator ash or in air pollutants.

Economic Benefits: The BERC also provides significant economic benefits to the community, private businesses, and non-profit organizations.

- 1) Reuse provides an economically beneficial alternative to non-profits in need of office equipment. For instance, a non-profit can use the \$75-\$250 cost of purchasing a new desk to provide direct services and programs to its constituents. Many non-profits, especially smaller, newer organizations, may not be able to afford office furniture or equipment at all. Reuse provides a means for acquiring the needed items.
- 2) Donating businesses receive the economic benefit of reduced disposal costs. Currently, the landfill tipping fee for Palm Beach County (a landfill owned by the SWA) is \$28/ton. The BERC offers pick-up of items at no charge to their business clients. Businesses can also take advantage of tax benefits when donating inventory or items that have not been fully depreciated to non-profit 501(c)(3) organizations.
- 3) In Palm Beach, reuse has become the mechanism for social rehabilitation, job training, and youth development efforts. The Drug Farm rehabilitation program has been a successful venture for contributing to the community's social needs and a hub for social programs in Palm Beach County.

Cost-Effectiveness: Reuse is the most efficient, if not the only, means to divert a vast portion of the targeted materials. For example, mixed material products such as laminated desks or wood and fabric chairs cannot be recycled cost-effectively. To deconstruct an item and reprocess the material for recycling takes significant collection and processing equipment, infrastructure and labor. In addition, some reusable items have little market value when recycled. For example, a desk has little inherent value once ground up because wood scrap is an abundant commodity and there is far more material available than the markets can absorb. Therefore, reuse becomes the most cost-effective means for managing a desk or table. Though repair may be necessary, putting a few resources into refurbishment and reuse results in a value-added, valuable item in the marketplace.

The BERC was not established as a facility expected to be self-sufficient. Many reuse centers charge handling fees or charge for the material they redistribute as a means of covering their operating budget. The SWA decided early on that they wanted the equipment from the BERC to be free of charge to non-profits, and that the BERC would be operated like one of the many waste management programs operated by SWA.

The goal then became to operate the BERC as efficiently and cost-effectively as possible in order to reduce the burden of costs on the SWA's annual operating budget. While the BERC has operated very efficiently with minimal staff, it has faced one major challenge with its ability to be as cost-effective as possible – a permanent facility to operate a center open to non-profits on a daily basis.

Non-Traditional Materials Collection

When the SWA set out to establish the BERC program, it was with the goal of reaching an entirely new category of materials for waste diversion and reuse. Nearly all of the items that the BERC handles were previously disposed of because of a lack of infrastructure for collection, processing and redistributing the material. Materials such as desks and other office furniture were often manufactured from materials that are not technically or cost-effectively recycled, such as particle board, which contains sawdust or wood scraps bound together by a chemical binder, making the materials unsuitable for composting or recycling. In addition, many of the items contained mixed materials, such as a combination of plastic, metals and wood. Again, there was no cost-effective means for managing these materials in the past other than disposal.

In addition, these materials were not only bulky and heavy, but they also took up significant space in a landfill. Large items like desks, conference tables, filing cabinets, credenzas, and more can now be diverted through the BERC instead of disposed.

The BERC was able to accept these reusable items, refurbish the item if needed, and hold the material in the BERC warehouse until redistribution.

Summary

BERC was piloted utilizing funds from the Florida Department of Environmental Protection. Now that the program is proven to be effective and meets the goals of SWA, the SWA Board has approved certain measures for the BERC to continue operating for the remainder of the current fiscal year. The department reallocated some personnel and some work assignments to reflect the evolving needs of SWA to concentrate on waste reduction and reuse, in addition to continuing to support its recycling and composting programs. To date, three SWA positions have been shifted from recycling to the BERC to support this goal. Now that the department has proven the program successful, SWA leadership, staff and the SWA Board are considering dedicating resources to the BERC so that the benefits can continue on beyond the grant period.

The only remaining objective of the Authority is to establish a permanent facility for the BERC to operate on an on-going basis. While the monthly releases of material to the community have been extremely successful, the only way to grow the program further and reap the full benefits of the program's potential for waste reduction, community benefit, and conservation, is to have a full-time facility whereby inventory can be made available to local non-profits on a regular schedule. A warehouse allows more materials to be stored and made available for reuse. It also allows for non-profits to have a place to go when they need items on an on-going basis. Of the five other business equipment reuse programs operating successfully across the country, no other program is operating without a permanent facility. Establishing a warehouse and regular

shopping hours is estimated to increase the amount of material diverted considerably. There will be a concerted effort toward meeting this objective over the coming year.

Below is a list of significant milestones and activities of the BERC over the past two years:

Planning/Project Start-up -

- SWA worked with the Reuse Development Organization, Inc. (ReDO) to research and write a business plan for a BERC, and to assist with the implementation of the plan upon its completion. Key findings of the plan included a genuine need for the program from local business and community organizations; need for a new facility to allow all operations under one roof; key personnel roles and responsibilities identified. In addition, the plan recommended the following guiding principles which has served as a mission statement for the BERC:

The Business Equipment Reuse Center (BERC) is a means to prevent solid waste from entering the landfill, improve our community, and increase the material, educational and occupational well-being of our citizens by taking useful products discarded by those who no longer want them and provide them to those who do. Reuse will support local environmental, community and social programs while providing donating businesses with tax benefits and reduced waste management costs.

- Completed demographic research of the Palm Beach Country community to develop a business equipment reuse program best suited for the unique community needs. Research included study of largest local businesses and non-profit networks.
- SWA made the decision to create the BERC as an internal program of the Authority, and not to operate the center through an independent non-profit organization in conjunction with Resource Depot. This decision was made because SWA can provide much greater resources for the program through joint utilization of personnel (especially in the areas of marketing and volunteer development), acquisition of equipment, acquisition of facility, and more. The decision to keep the project a SWA program may have resulted in minor changes to the program development of the BERC, and to the distribution of funds. SWA's long-term commitment to the BERC offers a greater likelihood for sustainability of the program.
- Held a community stakeholder meeting to get feedback from local businesses, non-profit organizations, educational institutions and others to gauge the market acceptance of a business equipment reuse center in matching materials available with materials needed within Palm Beach County. SWA developed mailing lists of local stakeholders, created and mailed invitations, did follow-up calls, surveyed attendees in advance of the meeting, and developed a video utilizing several success stories of the business equipment reuse program to date. Sixty local stakeholders attended the meeting, including businesses, local elected officials, local press, non-profit organizations, and others. Florida Power & Light provided the meeting facilities and sponsored the catered breakfast.

Implementation/Operations -

- Hired a Business Equipment Reuse Center (BERC) Manager as a staff position of the Solid Waste Authority. In addition, reorganization of the SWA Recycling Department occurred to provide a greater emphasis on reuse throughout the department and on the BERC.
- Additional staff was dedicated specifically to the BERC for pick-up and warehouse personnel.

- SWA purchased several pieces of material handling equipment, such as carts, dollies and appliance dollies, to ease in the movement of bulky furniture. They also purchased a box truck and one king cab pick up truck for pick-up of material from business donor sites.
- In its initial operation, staff developed an inventory management information sheet that determined value and weight of items likely to be managed through a business equipment reuse program to help track and report measurable successes.
- Developed a system to weigh and measure each item entering the reuse center to improve accuracy.
- Developed a custom database/web tracking program that incorporated inventory control and cost analysis for ease of tracking and reporting progress of the Center.
- Developed a standard operating procedures manual (SOP) to set standards and guidelines for personnel and proper means of handling materials that are picked up and redistributed through the BEREC.

Marketing/Outreach -

- SWA purchased a mailing list from a national non-profit support organization, Guidestar, and sent out a mailing to expand the list of non-profits who are aware of, utilizing, and benefiting from the BEREC.
- Implemented a focus group meeting to bring together local non-profits and local businesses to see if they would participate in a Business Equipment Reuse Center program and if so, how would a program work best for them. Much of the information gathered substantiated the information and recommendations in the business plan.
- Designed and developed a BEREC marketing brochure used to attract more donor and recipient organizations to participate in the program.
- Sent out marketing information about the BEREC to 1,675 local non-profit organizations to help increase the number of organizations benefiting from the BEREC's available business equipment.
- Newspaper article promoting the BEREC ran in the Sun Sentinel newspaper.
- Sent mailer to 10,000 local businesses to target new potential donors. Quantities of donations increased and quality of donations improved as a result of this marketing effort.
- SWA submitted for consideration and won an Addy Award from the Advertising Federation of Greater Palm Beaches for the BEREC truck "wrap" design. The Addy Award recognizes outstanding and innovative projects and people in the advertising field.
- Worked with local television station, WPTV Channel 5, to do a two-minute segment about the BEREC on the Florida's Future program as part of the 5 o'clock evening news.
- Sent approximately 800 direct marketing mailers to non-profits located in surrounding counties, such as Martin, St. Lucie, and Indian River, to attract more potential recipients at the BEREC. Having more organizations interested in shopping at the BEREC increases demand and thereby allows us to accept more donations from area businesses.
- Direct mail piece targeting the commercial sector was sent to 65,000 businesses in Palm Beach County to increase the donation base.
- Direct mail piece targeting non-profit organizations in surrounding counties was distributed to 20,000 non-profit organizations to increase awareness and participation.
- A local television station featured the BEREC program in a feature story on electronics recycling which aired on the NBC affiliate WPTV Channel 5.

Technology Transfer -

- Presented information about the BEREC during a national conference at the National Recycling Congress in Seattle, Washington, on January 13, 2002, as part of a half-day

national reuse workshop demonstrating model reuse programs sponsored by the Reuse Development Organization, Inc. (ReDO)

- Presented information about the BERC before colleagues at the Southern Waste Information Exchange (SWIX) Electronic Waste Workshop on March 26, 2002, in Orlando.
- Presented information about the BERC before colleagues at the SWIX Reuse Workshop on March 27, 2002, in Orlando.
- Presented information about the BERC at the Pollution Prevention Conference in August 2002 in Miami Beach;
- Presented information about the BERC at the Solid Waste Association of North America (SWANA) Conference in Naples.
- Presented information about the BERC at the Palm Beach Pollution Prevention Coalition conference.
- Submitted to Recycle Florida Today (RFT) information about the BERC for consideration of an award for innovation and success in recycling, and was awarded the honor by RFT during their annual conference.
- Attended and presented the BERC program at the National Waste Exchange Conference in Cincinnati, Ohio, during April 23 - 25, 2003.
- Submitted an application for consideration for an award for Innovation in American Government, sponsored by the Institute for Government Innovation at the John F. Kennedy School of Government at Harvard University.

Important Partnerships -

- Negotiated and finalized letter of service with and began picking up materials at Palm Beach Community College (PBCC). Prior to this agreement, PBCC auctioned off its excess and surplus items. However, upon careful review of their existing program, PBCC found that it is less expensive to work in partnership with the BERC and to donate the materials than to plan, operate and manage the auctions. The BERC staff picked up six (6) truckloads of reusable office equipment from PBCC in the first month of this partnership and has a continuously collected furniture and equipment from their campuses as necessary. A similar agreement was established with Florida Atlantic University and Palm Beach Atlantic University.
- Worked on an on-going basis with the Sheriff's Department Drug Farm (a boot-camp style drug rehabilitation program) to have residents trained to refurbish computer systems and repair office furniture to allow more materials to be reused through the BERC.
- Joined the Florida Association of Non-Profits, a state-wide organization providing information and services to Florida's non-profit community. The intent was to find ways to reach more non-profit organizations in Palm Beach County and throughout the State of Florida who could benefit from the BERC inventory. This helps SWA continue to increase the amount of flow being diverted through the BERC.

Sustainability/Growth -

- Worked to finalize and get SWA Governing Board approval on new budget for BERC; submitted revised budget to Florida Department of Environmental Protection for consideration, and received approval for revised budget. The new budget did not revise the scope of the original project funded by FDEP. The new budget simply redistributed the grant-funded items and the in-kind contributions in different categories than originally

- proposed. The change merely helped reflect the reality of the BERC development since it was implemented.
- Worked with Florida Department of Environmental Protection to extend the term of the Innovative Grant until April 15, 2004.
 - Prepared and presented 2002 – 2003 budget for consideration by the Solid Waste Authority Governing Board which provided funding for the project through September, 2003.
 - SWA prepared the BERC budget for consideration by the SWA Board for the 2003-04 budget year. Prepared memorandum to the Board for consideration of making the BERC a program of the SWA, and fund staff positions to operate the BERC beyond the DEP grant period. The SWA Board approved the budget for FY 2003 – 2004. Budget preparations for FY 2004 – 2005 are currently underway. Funding for the BERC is being proposed by staff, and will be reviewed for consideration by the SWA Board.

The SWA believes that the BERC has added significant and dramatic benefits to the community of Palm Beach County, in the form of waste reduction, pollution prevention, toxins reduction, economic development and business savings, and community development. The SWA will continue to grow the program to serve the needs of Palm Beach's business community, non-profit organizations, and the residents of the county. This program could not have been possible with the initial funding of the Florida Department of Environmental Protection, and the on-going support of the SWA management, the SWA Board, and the local elected officials who have grown to understand the asset that the BERC has become.