

BUSINESS EQUIPMENT REUSE CENTER
FY 2000/2001 Innovative Recycling Grant Proposal

Applicant County:	Solid Waste Authority of Palm Beach County
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Project Timeframe:	24 months

Project Abstract:

The Solid Waste Authority of Palm Beach County (SWA) proposes to develop and operate a Business Equipment Reuse Center (Center). The Center will facilitate the donation of business equipment no longer needed by local companies, and provide the equipment to nonprofit organizations in the community. It is the intent of the SWA that this Center will become the model for other Florida centers and serve as the template for a statewide business equipment solid waste diversion program.

The Center will be implemented by the SWA in partnership with the Resource Depot, a materials-for-schools program that takes surplus and scrap materials, and redistributes them to teachers for use in the classroom. The Center will expand the Resource Depot's operations to meet a broader community need and to divert additional materials from the waste stream. The Resource Depot is a 501(c)(3) nonprofit organization partially funded by the SWA. The goal is for both programs to become self-sustaining—building the capacity to enable them to stand alone without the need for government assistance. Located in West Palm Beach as part of the SWA's recycling collection facilities, the Center will occupy a total of 14,000 square feet of warehouse, showroom and office space. Donations will be picked up by Center staff or volunteers, or brought to the facility by the donor. Once the materials are evaluated and sorted, they may be refurbished if needed, then displayed and made available to county nonprofit organizations, schools and religious congregations.

The SWA has proven an ability to establish strong and diverse waste management programs, and the Business Equipment Reuse Center is just the latest of a series of innovative and effective programs they will implement to meet waste reduction goals. The SWA work with the Reuse Development Organization, Inc. (ReDO), a national 501(c)(3) organization that promotes reuse and has assisted with start-up of reuse centers in other parts of the country. ReDO will assist in the business planning and development stage of the project. The SWA will also work with local partners, including the business community, local charities, correctional facilities, public school system, and other organizations, to establish a sustainable and cost-effective program for the reuse of business equipment and furniture.

Implementation of business, development, and action plans; partnership with community businesses and organizations; and SWA's proven record of innovation and leadership in solid waste programming in Florida, **ensure a successful and sustainable program**. Further evidence of success can be found in the value-added component of repair and refurbishment, and the level of commitment to in-kind and cash contributions to this project.

(a) Technologies or Processes:

Overcoming Obstacles in Waste Reduction in New or Innovative Ways

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**. There are proven and effective options for the environmentally responsible and economically sensible management of these materials—as evidenced by such reuse initiatives as The Surplus Exchange in Kansas City, Community Resource Bank in Baltimore, and Community Resource Center in Cincinnati. All three of these centers facilitate the donation of business equipment from businesses in their community to local nonprofit organizations.

In Palm Beach County, there is a **dramatic shortfall** between the discards of equipment from local businesses and the infrastructure to get those materials reused. Currently, the only organized effort to manage the obsolete equipment is being conducted on a very small scale by the SWA. Unfortunately, the current system is very reactive, as a result of the limited resources currently available to this program. This means that only a small fraction of the business equipment available is currently being managed by the SWA. The following three examples provide evidence that a need for this program exists:

- During a recent 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.
- Florida Atlantic University's small reuse program operator regularly asks the SWA to accept office furniture, but neither organization can manage the quantity available.

The Solution: According to 1998 census data, there are approximately 32,000 businesses in Palm Beach County. All are, or have 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 meets their needs. At the same time, there are an estimated 1,800-2,200 nonprofit organizations in Palm Beach County that require these same items to run their daily operations. The Center seeks **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 nonprofit 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 Center to provide educational and occupational programs to the community.

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, will provide the experience and expertise for solving these challenges. Furthermore, the SWA will draw on the larger perspective and experiences of others successful in the reuse field through the Reuse Development Organization, Inc. (ReDO), as further explained in this proposal.

Not in Common Use 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, this Center will provide **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 nonprofit 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.

Novel Application of an Existing Technology or Process

What makes this program most unique are its (1) **cooperation between unique partners** and (2) **development of processes to tackle problematic materials**, such as business equipment and electronics.

Problematic Materials: The Center will target and divert from the waste stream general business equipment and supplies including reusable office furniture, computers and other electronics, warehouse fixtures, and office supplies. Most of these materials are 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. And, 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.

As is the experience of similar operations around the country, the Center will collect and process materials also passed over by for-profit businesses dealing in used furniture and equipment. In fact, it is the experience of business equipment reuse centers in other parts of the country that the for-profit businesses in their area soon see the value of this nonprofit ally and look to them for a means of getting rid of the old merchandise. In addition, private businesses selling new furniture and equipment do not view the reuse center as competition, but instead, a complementary program that provides a needed service. They look to the reuse center as an outlet for excess inventories or equipment taken in on trade. A preliminary survey of business equipment dealers in Palm Beach County indicates an overwhelming willingness to support this program.

Uncommon Partners: In addition to the uniqueness of the Center itself, other innovative aspects of this program will provide a "**first of its kind**" in the country. The Center will create a partnership between for-profit businesses and charity organizations. In addition, by virtue of its daily operations, the Center will also provide the community with opportunities for job and vocational training, as well as programs that promote rehabilitation and social change. An example of how this can occur already exists in the SWA's partnership with the Palm Beach County **Sheriff's Department**.

Currently, the Sheriff's office has, 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 management and residents of the Farm are already actively involved in other reuse activities, for example reusing plants from new development in their landscape training program and rebuilding computers in their computer training programs. The partnership with the Center will expand the Farm's training capabilities by establishing a system for refurbishing repairable equipment at the Farm, then sending it back to the Center for redistribution. Providing this value-added process will enable 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. Similar relationships will be established with other entities as further explained in the "Cost-Effectiveness" section.

(b) Environmental and Economic Benefits/Cost Effectiveness:

Though many communities have aggressive residential recycling programs, and lots of businesses have waste diversion programs that focus efforts on recycling of office paper or cardboard, an **organized, comprehensive reuse center** for office equipment and electronics can provide far greater environmental, economic and social benefits. Some businesses may make attempts to reuse their business equipment through a variety of internal and external resources; however, when these outlets fail, there is currently no real alternative. The Center will fill this gap and offer a **convenient, cost-effective alternative to landfilling**.

Environmental Benefits: The Center will be developed to address 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 will likely be greater than with standard residential or commercial recycling** programs, and even thrift store-type reuse programs that divert small household items or clothing. For instance, a standard office desk (30" X 60") occupies landfill space equivalent to 300 reams of standard office paper. Based on the County's demographics and compared to reuse initiatives in metropolitan areas of similar size, it is estimated that the Center will result in the following diversion rates over the next three years: Year One - 1250 tons (planning will take up six months, so it is estimated that the Center will only be operating 6 months); Year Two - 2875 tons; Year Three - 3306 tons. It is estimated that the Center will maintain at year three levels each year thereafter, or grow up to 15 percent in diversion each year.
- 2) **Reuse is higher on the waste management hierarchy than recycling** since it eliminates the environmental impacts of manufacturing a 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 has been identified as 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) This project will provide an outlet and reuse opportunity for a **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.

Economic Benefits: The Center will also provide significant economic benefits to the community, private businesses, and nonprofit organizations.

- 1) **Reuse provides an economically beneficial alternative** to nonprofits in need of office equipment. For instance, a non-profit can spend the \$200-\$500 cost of purchasing a new desk towards providing direct services and programs to its constituents. Many nonprofits, 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 \$26/ton. The Center will be offering 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 nonprofit

501(c)(3) organizations. Though the program will initially be led by the SWA, the partnership with the Resource Depot will enable donors to take advantage of such tax benefits.

- 3) In many communities, **reuse becomes the mechanism for social rehabilitation**, job training, youth development, and other successful community development efforts. The Drug Farm rehabilitation program is the first of many possible social programs that could be implemented in conjunction with the Center. In Kansas City, The Surplus Exchange utilizes donated computers and components to teach urban youth how to build a computer that they then are allowed to keep. In Portland and San Francisco, homeless or low-income clients learn a skill while providing the labor for repair programs. These programs provide participants with needed job and vocational training. The Center can become the hub for many 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.

Two of the main reasons the Center will be able to operate cost-effectively and to be sustainable after the funded project period are its use of resources provided by successful reuse centers in other parts of the country and the partnerships it will build with local businesses, nonprofit organizations, and other entities.

In planning for the Center, the SWA will draw upon the expertise of other national reuse centers through the Reuse Development Organization, Inc., (ReDO) a national 501(c)(3) organization promoting reuse as an environmentally sound, socially beneficial, and economically viable means for managing surplus and discarded materials. ReDO is the only organization dedicated solely to reuse, and brings together the collective expertise of those who have started up and operated successful reuse programs. ReDO will provide technical assistance to the SWA in developing both a business plan and a strategic action plan for **successful implementation** and **future sustainability** of the Center. The planning phase will encourage input and "buy in" from key stakeholders—community groups, industry, and others—and will utilize standard research practices to conduct a thorough analysis of the market resulting in:

- Determining the materials the nonprofit customers will want and their potential availability;
- Developing the best marketing strategies to acquire targeted materials;
- Developing the best marketing strategies to get the equipment to the nonprofit customers;
- Based on the equipment collected, researching and developing programs with nonprofit organizations to provide educational and occupational opportunities for their clients; and
- Providing a realistic three-year cash flow analysis.

ReDO will help SWA accomplish the activities and direction the business plan calls for by working closely with the entire organization—Staff and Board of Directors—to further develop a strategic plan of action which will actualize the tasks called for in the business plan. Included in this phase will be board and staff development sessions; further developing the Centers' mission and core competencies; time-lining and accountability for implementing and accomplishing tasks; and utilizing proven business practices. The plan will also explore development areas, including conventional and creative funding strategies to create a financially sustainable center.

In addition to working with ReDO, the Center will develop a working relationship with other project partners in the community.

Palm Beach County Sheriff's Department: In addition to the office equipment refurbishment program previously mentioned, an electronics recovery program will be spearheaded by two correctional facilities. All available, reusable electronic equipment will first go to the **Drug Farm** to be evaluated by the resident inmates, and refurbishment will occur at that time. If, however, the materials are deemed unacceptable for reuse, the equipment will go to **South Bay Correctional Facility** for a pilot demanufacturing process. Through a public/private partnership with Wackenhut Corrections, the state contracted operator of the South Bay Correctional Facility, inmates at South Bay who are participating in the workforce development program will receive training on demanufacturing and identifying materials that have some inherent, marketable value for recycling markets. By utilizing the inmates at the South Bay Correctional facility, the SWA can keep costs of processing to a minimum, and help close the digital divide between those who need to discard computers and those who need computer systems. The United Way of Palm Beach County indicated that computers are one of the most sought after items donated to nonprofit agencies in the County. The partnership with the correctional facilities provides the inmates with a valuable and marketable skill and adds a social benefit to the community, while reducing a difficult to manage waste stream, office equipment and electronics.

Private Industry: The Center will be a clearinghouse for the 32,000 businesses and organizations currently in operation in Palm Beach County by providing a cost-effective, consistent, and easily accessible means to manage obsolete or discarded business equipment. A preliminary survey of the Palm Beach County business community conducted during development of this proposal revealed many local businesses would be interested in working with the Center. Provided below are two examples of business partnership opportunities:

- **Florida Power & Light** (FP&L) has a very aggressive internal reuse and recycling program. However, many items are left over, not wanted by employees or brokers, and Russell Ketchem, FP&L's Recycling Coordinator, turns to the SWA for assistance. Recently, the FP&L warehouse was brimming with desks. **By working with the SWA**, residents from the Drug Farm were able to pick up the desks, refurbish them, and the SWA was then able to redistribute the items to local nonprofit organizations. While refurbishment would not have been cost-effective for FP&L, the cost to SWA's program is justified since the refurbishment is part of a rehabilitation program that provides a valuable public service.
- **Pratt & Whitney**, which closed its local offices, recently disposed of over 100 desks before the SWA could step in and funnel the items to reuse.

Local Charities: Charities in Palm Beach County have nowhere to go for no-cost or low-cost office furniture and equipment when starting up an office or replacing broken beyond repair items. In a preliminary survey of Palm Beach County nonprofit organizations, reported donations of office equipment do not meet the needs. Eileen Boyle, Vice President of Community Services for the **United Way of Palm Beach County** reports that when donations do become available, United Way has limited resources to distribute the furniture and equipment. The demand for good quality furniture and working computers is especially high. Ms. Boyle expressed interest in assisting the SWA in notifying, such as through broadcast fax, the extensive network of nonprofit organizations about the availability of used equipment. Other options, such as "shopping days" for nonprofits in the western part of the County that do not frequently travel to West Palm Beach, are also possible program elements.

Other Partners: The **Palm Beach County School System** has a reuse center that takes obsolete and unused items from the schools and stores them temporarily until they can be redistributed to other schools or programs within the system. Some items are no longer suitable for the classroom or school use, such as typewriters and old thermographic fax machines, and Eric Meyer, Property Redistribution Manager for the school district's reuse warehouse, is enthusiastic about working with the Center to find an outlet for these materials. The district's program also brokers computer systems that are no longer usable in the schools, and the Center's electronics reuse program may be able to assist in getting more computer systems reused within the schools that today cannot.

(c) Transferability:

No two reuse centers are exactly alike since each is started by a local champion, may have a different spin on its mission to meet specific local needs, and may have access to different resources. But, others in the state interested in starting up a business equipment reuse center can greatly benefit from the process, programs, and partners set forth in the SWA business plan. In addition, it is not uncommon for a reuse center located within a region to work cooperatively on large donations, redistribution systems, marketing, and sharing of ideas.

Transferability

Once the Center is up and running, it will serve as a model to the rest of the State as a cost-effective means of removing bulky goods, such as desks, tables, chairs, and electronics, from the waste stream while also meeting a material need in the community. Other communities can utilize the experiences and plans of the SWA to **lay the groundwork** for their own activities.

Electronics management poses one of the greatest challenges among solid waste categories. Many communities are struggling to find a cost-effective means of collecting, refurbishing, reusing, recycling, and properly disposing of electronics. At the same time, there is a tremendous demand for electronics, especially computers, among nonprofit organizations. This project will provide a model on how to build partnerships with community programs to develop a cost-effective system for processing or demanufacturing electronics while at the same time adding social benefit to the community by providing training in valuable and marketable skills.

The SWA will demonstrate how to successfully work with a variety of constituent groups that use the Center to meet specific needs. Information on how the SWA set up the infrastructure and built the relationships will be some of the most valuable information to share. In addition, sharing the experience of the day-to-day operations of the Center will also provide valuable insight to those interested in starting up a center. A center doesn't just appeal to one particular group. Instead, solid waste managers, community development organizations, asset managers, nonprofit groups, government agencies and others can all benefit from the completed plan. It could be any one of these groups that becomes the local champion for setting up a Business Equipment Reuse Center in their own community. As a result, the likelihood of **true replication** of a reuse program is greater than with other waste management strategies, since many within every community will have a vested interest in establishing a successful program. The Center's business plan will provide a "roadmap" for other communities in Florida to create similar programs, addressing their specific demographics, resources and needs.

Promoting Transferability

Strategies for sharing this "roadmap" with other Florida communities will be explored during the business planning process. However, the SWA is committed to working with their counterparts across the State to educate them on the benefits of reuse and operating a Business Equipment Reuse Center. The Center will host an **open house** to demonstrate how the Center works; schedule **tours**; develop the SWA **website** to include information about the Center; and share all nonproprietary information. The SWA will also work with FLDEP to share information with other solid waste districts. Finally, the SWA will utilize their relationship with Recycle Florida Today (RFT), the statewide recycling association, to get the word out, such as **planning and moderating sessions or workshops** during RFT's annual conference and during their issues forums, **hosting a tour** of the facility co-sponsored by RFT, and providing information for the **RFT newsletter and other publications**.

It will also be important that **business success stories be shared with the business community** through local and State Chambers of Commerce, asset recovery and waste management organizations, roundtables, conferences, and business targeted publications. In addition, the Palm Beach County correctional facilities can serve as a model for other correctional facilities across Florida, and can share the benefits of working with solid waste authorities to teach a skill and benefit the community.

The Center will provide an excellent example of how to **move up the solid waste hierarchy**. This project will strive to bring the best practices, the experiences and expertise, the pitfalls and challenges, and the successes of other reuse organizations to Palm Beach County to create a successful Business Equipment Reuse Center, which in turn will be the model for all of Florida.

(d) Local Support:

As discussed earlier in this proposal, the success of the SWA project hinges on the number and diversity of partners. From the **local businesses**, like Florida Power & Light, who are committed to diverting materials to the Business Equipment Reuse Center as a means of avoided disposal, to the leadership and residents of the **correctional institutions** who are committed to collecting and refurbishing the business equipment, to the **Resource Depot** who will help manage the Center's day-to-day operations, to the **United Way of PBC** who will help promote the availability of business equipment, to the **School District** reuse program who will utilize the center to divert items not suitable for redistribution in the schools, the SWA will involve every potential partner in order to ensure the program's success.

The SWA alone will contribute substantial financial contribution to make certain that the Center has all the resources necessary for success. The SWA will contribute the following in-kind personnel contribution:

- A portion of the assistant directors time;
- A portion of a collector's time;
- 50% of the time of The Resource Depot executive director; and
- A part-time administrative assistant.

There are also significant additional in-kind and cash commitments in facility, operational and marketing. **The total in-kind and cash committed to this project from the SWA represents a total of \$356,180, or 64 percent of the total project costs.** The SWA is providing 160 percent of the amount requested by the grant.

