



2008

*Annual Report*



**FIERA**

# Chairman's Letter



Dear Friends:

Since 1990, the State Revolving Fund (SRF) has provided 338 loans to more than 200 communities and districts for the construction of, or improvements to, wastewater treatment facilities and public drinking water systems. The 338 low-cost loans reflect **\$1.6 billion** financed.

In the construction of water and wastewater treatment facilities, workers from several occupations are involved in the completion of the project—engineering firms, electrical contractors, construction companies, etc. According to the Missouri Department of Economic Development, every dollar invested in water and wastewater infrastructure improvements, generate more than **\$8.50** in economic impact.

According to the National Utility Contractors Association (NUCA), for every **\$1 billion** financed in water and wastewater improvements, 50,000 construction jobs and 20,000 permanent jobs are created. Therefore, according to NUCA figures, the Authority has assisted in the creation of 94,000 construction jobs and approximately 38,000 permanent jobs.

Also, by financing water and sewer projects through the SRF (\$1.7 billion), rather than conventional financing, participants saved more than **\$576 million**. These savings allow officials and community leaders to focus their limited financial resources on other local projects and priorities, while complying with federal environmental standards.

Yes, these are challenging times for our towns and cities, the state, and business and industry. However, I am optimistic about the prospects for the coming year. In that regard, the Authority will continue to play a small role in the growth and development of rural and urban communities, by attempting to provide low-cost project financing for environmental management.

Thank you for your continued support.

Sincerely,

A handwritten signature in black ink that reads "Robt C Kramer". The signature is written in a cursive style.

Robt C Kramer  
Chairman

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### Front Cover:

Seven workers from Irvinbilt Construction Company, Chillicothe, busily prepare steel forms for the pouring of concrete at the Trenton Wastewater Treatment Plant, part of an \$8 million improvement project financed through the State Revolving Fund. When completed, this two-story, 4,800 square-foot structure will be the Sludge Processing Building where trucks pick up biosolids from a conveyor belt and transport it to a storage area.

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# Members of the Authority



## Robt C Kramer, Chairman

In 2007, Robt C Kramer was appointed to the Authority for a three-year term by Gov. Matt Blunt.

A corporate executive and businessman for more than 25 years, Kramer worked five years as a management consultant based in Chicago. He worked five years at Citicorp, focusing on first and second mortgage loan processing. At Mercantile Bank, St. Louis, he was involved in planning and marketing and credit card recovery. For 10 years, Kramer was self-employed in the distribution and delivery service.

A native Missourian, Kramer owns a 57-acre farm near Gerald in Franklin County. He enjoys bird watching and taking photographs of flowers. He has been married to his wife, Ellen, for 41 years and they live in St. Louis. The Kramers have two daughters and four grandchildren (two boys and two girls).



## Ryan Doyle, P.E., Vice Chairman

Ryan Doyle was appointed to the Authority for a three-year term by Gov. Matt Blunt. He is currently a process engineer at ATK at the Lake City Ammunition Plant. Prior to joining ATK, Doyle was an environmental and safety engineer at Pittsburgh Corning in Sedalia.

In 2001, Doyle earned a Bachelor of Science degree in chemical engineering from the University of Kansas and is a certified Professional Engineer. In 2007, Doyle earned a Masters of Science degree in industrial hygiene from the University of Central Missouri in Warrensburg. He is married and lives in Lee's Summit.



## Deron Cherry, Treasurer

Deron Cherry, reappointed to a second term by Gov. Matt Blunt, is a Kansas City businessman and former NFL star. Cherry is managing general partner of United Beverage Company, an Anheuser-Busch distributor in Kansas City. He is a minority owner for the AFL's Jacksonville Jaguars football team.

A six-time All-Pro safety, Cherry was considered one of the best players in Kansas City Chiefs history. He was named to the All NFL Decade Team in the 1980s and is a member of the Kansas City Chiefs Hall of Fame. Known for his bone-jarring tackles, his 50 career interceptions rank third in club history. In 1988, he received the NFL Players Association's highest honor, The Byron White Humanitarian Award for service to his team, community, and country.

Cherry, who graduated from Rutgers University with a B.S. degree in Biology, has been a spokesman and fundraiser for several non-profit organizations. He is the founder of Score1 for Health, a program that provides health screenings for more than 12,000 children in the Kansas City metropolitan area. Also, he is co-chairman of the Jazz District Redevelopment Corporation and serves on the Kansas City Sports Commission and the Kansas City Liquor Advisory Committee. Also, he was selected by Gov. Blunt to serve on the Jackson County Sports Authority.



## Jason Morgan, Secretary

Jason Morgan was appointed to the Authority for a three-year term by Gov. Matt Blunt. He is currently a principal at Prudential Alliance Commercial, in Chesterfield, and is the managing broker that oversees all commercial brokerage activity.

In 1995, Morgan began his real estate career with a prominent St. Louis company and, in 1998, opened his own commercial real estate brokerage firm, Cornerstone Commercial Realty. His real estate experience includes both sales and leasing transactions involving retail, office, industrial, and investment properties as well as commercial and residential land sales. His client transaction experience includes Argo Products, Bommarito Automotive Group, Commercial Bank, and Quik Trip Corporation.

Morgan has a Bachelor of Liberal Arts degree in business communications from the University of Kansas. He serves on the board of the Metropolitan Commercial Real Estate Developers Association, and is a member of the St. Louis Association of Realtors and the Missouri and National Association of Realtors. Also, he is director of the Commercial Information Exchange and is a member of the Enterprise Bank Business Leadership Forum.



# The EIERA - Its History and Mission

The Environmental Improvement and Energy Resources Authority (EIERA) is an independent, self-supporting agency, created in 1972 by the state legislature. The EIERA's mandate is to protect Missouri's environment, develop energy alternatives, and promote economic development. The Authority's mandate is broad and includes financing projects and providing technical assistance.

The EIERA is not a regulatory agency. The Authority operates as a quasi-governmental agency and receives no state general revenues for its operation. The agency operates on fees received for issuing bond financings. However, in 1972, the EIERA did receive a one-time appropriation of **\$225,000** from the General Assembly. Over the years, these monies have been leveraged into **\$5.3 billion** for environmental financing.

The governor appoints the five members of the Authority's board for three-year terms. Board members have experience in law, finance, and environmental affairs. A director and seven staff members conduct the day-to-day activities.

Since 1973, the EIERA has been recognized as an innovative financing agency. The EIERA issues several types of traditional tax exempt and taxable notes and bonds which are regulated by state and federal laws. The structure of EIERA financings and assistance have varied greatly and are dependent upon the uses and repayment sources of the projects. The nature and size of the projects as well as current federal and state laws are also factors, which must be considered by the EIERA board and staff when requests for financing are reviewed.

In addition to bond and note financings, the EIERA can provide small projects with financial assistance. The EIERA continues to develop alternative financing methods to assist environmental improvement and energy projects. In terms of energy projects, the Missouri Energy Efficiency Leveraged Loan Program is regarded as the first of its type in the nation. Developed in 2000 by EIERA staff and the Department of Natural Resource's Energy Center, this program provides low-cost financing to increase energy efficiency in Missouri schools and public buildings.



*A small, rustic shed is daunted by a 21-story wind turbine, owned and operated by Kansas City Power and Light (KCPL). In addition to fossil fuels, KCPL is developing wind and other energy alternatives to generate electricity for its Missouri customers. In the mid-1970s, KCPL was one of the first 10 companies to receive low-cost loan assistance from the Environmental Improvement Authority (EIA) to purchase pollution control equipment. In 1983, the Authority was renamed EIERA.*

In 1990, the State Revolving Fund (SRF) was developed by EIERA, the Clean Water Commission, Department of Natural Resources, and U.S. Environmental Protection Agency. One of the highest rated SRFs in the nation, this program provides low-cost loans to communities and districts for construction of wastewater and sewage treatment plants. In 1997, a drinking water SRF was developed to assist communities in their efforts to upgrade public drinking water systems and facilities. Also, with this expansion, the Safe Drinking Water Commission was incorporated into the program.

In 1992, the Missouri General Assembly established the Missouri Market Development Program to develop and promote markets for recycled content products. The EIERA administers the program and receives assistance through an inter-agency steering committee composed of staff at the Department of Natural Resources and the Department of Economic Development. The steering committee reviews applications and the Authority's board of directors approves all projects.

# The Year in Review

This past year, the Watershed Center at Valley Water Mill received **\$50,000** in financial assistance. The 100-acre educational facility, located one mile north of I-44 in Springfield, is charged with protecting current and future public drinking water sources through various initiatives. In addition to meeting rooms, there are hiking and biking trails, wetland areas, fishing piers, and boardwalks.

In 2008, the Authority issued more than **\$56.7 million** in State Revolving Fund bonds for wastewater and drinking water projects. The Market Development Program, which promotes markets for recycled-content products, provided **\$343,332** in project assistance to eight businesses and **\$87,350** in technical assistance to 20 businesses and organizations.

Since 2000, Missouri Energy Efficiency Leveraged Loan Program has provided **\$26.4 million** to more than 70 public school projects and **\$6.5 million** to 15 local governments to install energy efficient lights, windows and equipment.

The Brownfields Revolving Loan Program provides low-cost loans for the cleanup of brownfield sites and is a tremendous opportunity for local leaders in rural and urban communities.



*This 60-foot by 30-foot Lakeside Learning Center (pavilion) is an outdoor classroom at the Watershed Center at Valley Water Mill, in Springfield. The Watershed Center is educational facility that is currently staffed with two outdoor education specialists. The facility is the first watershed education center in the Midwest and is an excellent training facility.*

## Staff Activities

The EIERA staff provides support to other organizations that promote environmental protection or environmental financing initiatives.

## Council of Infrastructure Financing Authorities

Based in Washington, D.C., the Council of Infrastructure Financing Authorities (CIFA) was established in the mid-1980s. CIFA has members in 44 states and is administered by an executive director and four officers (president, vice president, secretary and treasurer). The EIERA is a charter member of CIFA and **Tom Welch**, director, and **Karen Massey**, deputy director, are the EIERA representatives.

CIFA is a major voice in advancing innovative debt financing techniques to ensure public access to affordable infrastructure improvements. It harnesses the resources of federal, state and local governments to serve the environmental needs of the general public.

## Missouri Recycling Association

The Missouri Recycling Association (MORA) is a statewide not-for-profit organization that is administered by a 12-member board. Staff member **Kristin Allan-Tipton** is a former president of MORA.

MORA goals support waste reduction and recycling by providing information, educational opportunities and technical assistance. The 200-member organization sponsors an annual conference and supports other environmental conferences and seminars. The group publishes a quarterly newsletter and is an affiliate of the National Recycling Coalition.

## Missouri Waste Control Coalition

The Missouri Waste Control Coalition (MWCC) is 300-member not-for-profit organization. The statewide organization is a coalition of citizens, companies and organizations who are concerned about the environment and the proper management and disposal of generated wastes.

Annually, the MWCC sponsors the Missouri Waste Management Conference, one of the oldest environmental conferences in the nation. Also, the MWCC publishes an online newsletter and sponsors an awards program and a scholarship program. Staff member **Kenneth Seeney** is a former president of the MWCC and a former board member of the National Recycling Coalition. **Kristin Allan-Tipton** is a former president of the coalition.

## Missouri's First Vertical Loop Reactor

Washington is a city of 13,200 residents, located 50 miles west of St. Louis. Mayor Richard Stratman is proud of his community with beautiful parks, stately churches, great schools, attractive shopping areas, and thriving businesses – and one of the few bridges in the state that crosses the Missouri River.

Also, Mayor Stratman speaks with pride about the new wastewater treatment plant being constructed three miles west of city hall. The plant has the vertical loop reactor (VLR), which is an innovative biological treatment system. And the “Cannibal” system is a process that virtually eliminates the need to dispose of the sludge byproduct, which can be a costly expense.

“The plant will be first of this type in the state of Missouri,” boasts Mayor Stratman, referring to the VLR and the Cannibal. The 10-acre, **\$20 million** facility, which employs three workers, will process more than 4 million gallons of treated water every day. “Because the new plant is designed to have increased capacity over the old plant, it will enhance development throughout the city.”

Basically, the untreated wastewater will flow into a pumping station and then is lifted to the two-story headworks building where the wastewater is screened and grit is removed. Then, the wastewater enters the VLR, which has four cells, each 100 feet by 30 feet and 22 feet “deep.” The wastewater, with recycled sludge, rolls over and under a vertical loop and organics and other pollutants are removed.

Next, the wastewater heads to two clarifiers, which remove scum and sludge. Each clarifier is designed for average flow of four million gallons a day. About 2 million of the 4 million gallons is “clean” water and will flow to the UV (ultra violet) disinfection structure. In this structure, the effluent will be “hit” with ultra violet light to kill the bacteria, without the use of chemicals. Then the clean water is discharged to the Missouri River, about a half mile



*In this “cell” which is 100 feet by 30 feet and 22 feet deep, wastewater mixed with recycled sludge, rolls over and under a vertical loop and organics and other pollutants are removed. The vertical loop reactor, under construction at Washington’s wastewater treatment plant, is an innovative biological process in the treatment industry and will be the first operation of this type in Missouri.*

to the north. The remaining two million gallons of “dirty water” (sludge) is pumped through a micro-screen and recirculated through the system.

“This facility is one of the largest projects that we have ever financed,” said Ryan Doyle, vice chairman of the Authority. “The vertical loop reactor and the Cannibal systems are new technologies in the treatment industry and we are proud to be associated with this project.”

The new plant is engineered and designed by Jacobs Engineering (St. Louis), and constructed by KCI Construction, another St. Louis-based company. Jacobs and KCI had 40 to 50 workers at the construction site. The plant will be completed next year.

**“This facility is one of the largest projects that we have ever financed.”**

*Ryan Doyle  
Vice Chairman of the Authority*



# State Revolving Fund

## SRF – A Good Program for the Community

In 2007, the city of Trenton, which is about 100 miles northeast of Kansas City, was 150 years old. That's quite a milestone. However, the city's wastewater treatment plant is not quite that old. In fact, just recently, officials installed new equipment.

In 1997, Trenton officials received a **\$5 million** loan from the State Revolving Fund (SRF) to build a lift station, install a grit removal system, and make improvements to the collection system. Now, city officials are SRF participants, again.

"Of course, there is some paperwork to submit and other administrative tasks, but the program (SRF) works for us," said Cathie Smith, mayor of Trenton, a town of 6,200 people in Grundy County. "And the interest rate (loan) is 2 percent. It's just a good program for our community."

During fiscal year 2008, Trenton officials received an **\$8 million** loan from the SRF. This time, city leaders are building a new clarifier with increased capacity and new aeration equipment. New sewer

pipes ranging in size from 2" to 30" will be installed in various locations at the site. A new, one-story building to process biosolids (sludge) will be about 4,800 square feet. Also, in future years, plant workers hope to deliver up to 800 tons of sludge to area farmers. Trenton officials will ensure that the sludge is free of harmful contaminants.

**"...there is some paperwork to submit and other administrative tasks, but the program (SRF) works for us. And the interest rate (loan) is 2 percent. It's just a good program for our community."**

*The Honorable Cathie Smith  
Mayor of Trenton*

*(Continued on page 7)*



*This clarifier, which is 50 feet in diameter, removes scum and sludge from the wastewater. The clarifier, under construction at the Trenton wastewater treatment plant, is designed for an average flow of 3 million gallons a day. Trenton's main plant, one of the largest treatment facilities in northwest Missouri, sits on five acres, but the entire complex covers 100 acres.*



# State Revolving Fund

A new on-site generator will provide electricity in emergency situations. “When the power goes off, you still have to provide services to citizens and businesses in the community,” said Phil Hoffman, chairman of the Board of Public Works. “That includes processing sewage and wastewater.”

The new plant is one of the largest wastewater treatment facilities in northwest Missouri and has four full-time employees. The mechanical facility, which processes about 1.5 million gallons a day, sits on about five acres (the entire complex covers about 100 acres). A large industrial customer, in the center of town, employs about 425 workers and accounts for about 60 to 70 percent of the load on the plant.

Plant construction started in March 2008 and will be completed next year. The general contractor is Irvinbilt, a company based in Chillicothe. Irvinbilt has 15-20 workers at the construction site. Some of the subcontractors include Missouri Electric (St. Joseph) and Cunningham Plumbing (Chillicothe). The project engineer was Burns and McDonnell, Kansas City.

“Trenton is a prosperous town, similar to other Missouri communities with homes, restaurants, small businesses and a large industrial company,” said Ryan Doyle, vice chairman of the Authority. “Local leaders want the city’s infrastructure to respond in a manner that



*In 1997, Trenton officials received a \$5 million loan from State Revolving Fund to build a new headworks system, which included this 6-pump lift station and other improvements, such as the installation of a grit removal system and upgrades to the collection system.*

adequately meets the demands placed on the treatment plant and other facilities. Then, development is achieved at a moderate rate without pressure on the system.”

The SRF Wastewater Program was established in 1990 and provides low-cost loans for improvements to sewage and wastewater treatment facilities. In fiscal year 2008, **\$56.3 million** was loaned to eight communities or sewer districts for system improvements and upgrades.

In 1997, the SRF Public Drinking Water Program was established to assist communities and districts to purchase new equipment or make physical improvements to plant facilities. During the past five years, 28 communities or water districts have received more than **\$95 million** for plant improvements.

**“When the power goes off, you still have to provide services to citizens and businesses in the community. That includes processing sewage and wastewater.”**

*Phil Hoffman, Chairman  
Board of Public Works*

# SRF Projects Financed in Fiscal Year 2008

## State Revolving Fund

### Clear Water Projects

Boone County Sewer District	\$2,710,000.00
Buffalo	\$3,800,000.00
Columbia	\$1,800,000.00
Dexter	\$4,500,000.00
Nevada	\$12,000,000.00
Owensville	\$3,525,000.00
Trenton	\$8,000,000.00
Washington	\$20,000,000.00

### Drinking Water Projects

Hamilton	\$385,000.00
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**TOTAL** \$56,720,000.00



*This past year, 2,100-acre Washington State Park, pictured above, celebrated its 75th anniversary. The park has a modern swimming pool and kitchen-equipped cabins and is bordered by the Big River, which provides opportunities for canoeing and fishing. The park and its several buildings were built by a black unit of the Civilian Conservation Corps (CCC). In 1933, CCC Company 1743, the "Thunderbirds" worked on 14 buildings and laid stone for the 1,000 Steps Trail, and built the octagonal lookout shelter.*

# Market Development Program

## Plastic Lumber Company of America...St. Louis

The company is about two miles north of I-70. But first you have to cross over two or three streets and drive “through” two cemeteries – where reportedly Gen. William T. Sherman and explorer William Clark (of Lewis & Clark) are buried. Then about 200 more yards and you arrive at 8000 Hall Street.

And buried in recycled plastic is Tom Urani, CEO of the Plastic Lumber Company of America.

In his 78,000 square-foot warehouse, Urani’s 24 full-time employees make a number of products from recycled plastic. Plastic Lumber makes landscape timbers, boat docks and boat lifts, nailing strips for cement forms (for the construction industry), truck spacers (for 18-wheelers). His primary customers are two companies that are key players in the transportation industry. Another major customer is the world’s largest concrete contractor.

Urani’s employees collect plastic containers – milk jugs, soft drink containers, flower pots, ink buckets, and agricultural and pesticide containers from several suppliers in the St. Louis area, including the Missouri Botanical Garden, Recycling Concepts, and Baden Plastics.

Because he manufactures products with recycled content, Urani diverts 2,500 tons of plastic material, each year, from area landfills. In fiscal year 2007, he applied for and received **\$50,000** in financial assistance from the Missouri Market Development Program in Jefferson City. The assistance was used to expand his company’s operation.

With the Market Development assistance, Urani purchased a cooling tank, a “puller,” and a traveling chop saw. The puller can move a board along a tract at about four feet a minute. “The chop saw has no limit, it engages once the proper board length is achieved. A board could be one inch or 100 feet,” Urani said. Both the puller and traveling chop saw weigh about 1,000 pounds.

Plastic Lumber Company of America is located in building No. # 5 in the St. Louis Business Center. The 900,000 square-foot center, which won the 2005 award for the St. Louis Industrial Development of the Year, was the site of a manufacturing facility for street cars that were built for local and national distribution.



*In this 78,000 square-foot plant, workers at Plastic Lumber Company of America produce landscape timbers, boat docks, boat lifts, nailing strips (construction industry), and truck spacers for the transportation industry (for 18-wheelers).*

Green Street Properties, Inc., which developed the St. Louis Business Center, was founded in 2007 by Phil Hulse and Mike Clark. The St. Louis-based company, which focuses on “green” buildings, has developed more than five million square feet of property in the metropolitan area, valued at \$200 million.

“The Plastic Lumber Company is a successful business that makes quality products from recycled materials,” said Robt Kramer, chairman of the Authority. “And the company’s base of operation is an award-winning redevelopment project. Both activities are good examples of the wise reuse of resources – situations that are central to the Authority’s mission.”



# Market Development Program

## Plastic Pellets – One Million a Month

One Christmas, a couple of years ago, Ron Wahlers and his wife drove to Blackrock, Arkansas, to spend the holidays with family and friends. Sitting around the living room, Ron’s brother-in-law, Jason, had a question for him.

“Why don’t you do something with all of that plastic pipe out there in those fields? Why don’t you recycle it or something?” Jason asked. Ron had operated a machine shop. Now, for several years, his company had recycled scrap diapers – about a million pounds per month. He didn’t need another headache.

“I didn’t know what to do with it,” explained Ron, vice president of Wahlco/DW Tool, Inc. Wahlco is located in Jackson on Highway 177 (near Cape Girardeau), about 100 miles south of St. Louis. Well, after Christmas, Ron took a pickup load of that plastic pipe back to Jackson and began to “tinker” with it in his basement.

Today, Wahlco is the only Missouri company that collects and recycles irrigation pipe that is used to water crops in farm fields. Farmers punch “holes” in the tubing and usually get about one year’s use out of it. Then the sun “bakes” the tubing and its usefulness is pretty much completed. In September, a trucking contractor begins to collect irrigation pipe in the Sikeston and Bootheel areas and then travels to Arkansas, Louisiana, and Mississippi, to collect more irrigation pipe. He collects about 10 to 12 million pounds a year.

Then, 24 hours a day, five days a week, Wahlco’s 200 workers begin to process the irrigation pipe. First, in a 4,500 square-foot “Butler” building, the mud-caked pipe is washed, sending about 600 gallons of water a minute to a settling pond. The water is recycled and reused in the wash cycle and the dirt – about 10 tons a day – is spread out on nearby fields. Then the pipe is “chopped,” baled, and



*This pile of mud-caked irrigation pipe (bottom photo) is headed to a washer to be cleaned. Then, the plastic pipe is sliced and chopped into a three-foot, 600-pound bale (top photo). Workers can wash and bale about 1,200 to 1,500 pounds of plastic in an hour. Each year, a contractor hired by Wahlcos collects between 10 and 12 million pounds of plastic pipe from farm fields in Arkansas, Louisiana, Mississippi, and Missouri.*

hailed about 75 yards to the big plant. The plastic pieces are dried and then sent through an extruder at 450 degrees and “melted” into white plastic pellets.

Every month, Wahlco’s produces about 1.2 million pounds of those white plastic pellets. Some of the pellets are shipped to Continental, a company in Mexico, Missouri, that makes black trash bags and round plastic tubes (the “yellow tubes” usually attached to mailboxes to hold newspapers, etc.).

*(Continued on page 11)*

# Market Development Program

Every month, Wahlco's turns 500,000 pounds of plastic pellets into paneling or baseboard. Indiana Parkland Plastics markets and distributes the black, plastic baseboard, exclusively, to Wal-Mart and Sam's Stores. Also, the Indiana company distributes the plastic wall paneling to Lowe's and Home Depot.

"Wahlco's 200 employees make ordinary, but necessary products that homeowners use every day," said Deron Cherry, treasurer of the Authority. "This is a great scenario for the Market Development Program – plastic materials diverted from the landfill, given a second life as a new product, and jobs are created or sustained in the process."

In fiscal year 2007, Wahlco received **\$19,500** from the Missouri Market Development Program to purchase equipment used in the company's manufacturing process.

This past year, the Market Development Program provided **\$343,332** to eight Missouri businesses and **\$87,350** to 20 companies for technical assistance and product research.

Since 1991, the Market Development Program has provided **\$7.8 million** statewide to Missouri businesses to produce commercial products from recycled materials. Since 1999, companies that have received financial assistance have created more than **375 new jobs**.

**"This is a great scenario – plastic materials diverted from the landfill and given a second life as a new product, and jobs are created or sustained in the process."**

*Deron Cherry  
Treasurer of the Authority*



*In Wahlco's 200,000 square-foot plant, these pieces of plastic are on a conveyor belt headed to an extruder, where the pieces will be melted at 450 degrees into small white pellets. The white pellets will be made into several products, including trash bags, newspaper tube holders, black baseboard and wall paneling. Every month, Wahlco's produces a million pounds of pellets.*



# Market Development Program

## Financial Assistance Projects – Fiscal Year 2008

Company	Materials	Location	Amount
Eharas Services and Solutions	Wood	Liberty	\$50,000.00
Central Missouri Poultry Producers	Sawdust	California	\$23,332.00
Loganbill Enterprises, Inc.	Wood	Versailles	\$35,000.00
Hansen's Tree Service	Wood	O'Fallon	\$50,000.00
Halphin Enterprises, Inc.	Yard Waste	Blue Springs	\$35,000.00
Alternative Community Training	Plastics	Columbia	\$50,000.00
Eco Recycling, Inc.	Concrete, Asphalt	St. Louis	\$50,000.00
Performance Roof Systems, Inc.	Asphalt	Kansas City	\$50,000.00
<b>TOTAL</b>			<b>\$343,332.00</b>

## Technical Assistance Projects – Fiscal Year 2008

Company	Materials	Location	Amount
Seiler Plastics Corp.	Plastic	St. Louis	\$3,000.00
Windsor Foods	Food	Piedmont	\$5,500.00
Black River Asphalt, LLC	Glass, Rubber	Ellington	\$6,500.00
Orco Industries, LLC	HDPE	LaGrange	\$3,500.00
Noranda Aluminum, Inc.	Wood Pallets	New Madrid	\$6,500.00
Double G Brands, Inc.	Ham Bones	Pacific	\$5,000.00
ACT, Inc.	Electronics	Columbia	\$5,000.00
Foundation Workshop, Inc.	Paper, Cardboard	Kansas City	\$2,350.00
EMA, Inc.	Glass	St. Louis	\$5,000.00
Seiler Plastics Corp.	Plastic	St. Louis	\$2,000.00
National Cart	Casters	St. Charles	\$5,000.00
Boreflex Industries, Inc.	Plastic	Mountain Grove	\$4,000.00
Windswept Worm Farm	Yard Waste	Kansas City	\$3,500.00
Chadwick R-1 School District	Sawdust	Chadwick	\$5,000.00
Drumtech, Inc.	Oil	St. Louis	\$2,500.00
The Doe Run Company	Cardboard	St. Louis	\$3,500.00
Pillar Group, LLC	Powder Paint	Monett	\$5,000.00
Turflin, Inc.	Container Boxes	Moscow Mills	\$3,000.00
Highland Homes, Inc.	Wood	University City	\$5,000.00
Ceramo Company, Inc.	Clay Pots	Jackson	\$6,500.00
<b>TOTAL</b>			<b>\$87,350.00</b>

*A worker at the Plastic Lumber Company of America (St. Louis) watches closely as a plastic board is "pulled" into a traveling chop saw, at the rate of four feet a minute. The puller and saw were purchased with financial assistance (\$50,000) from the Missouri Market Development Program. Each machine weighs about 1,000 pounds.*





# Projects Financed Through Bond Issuances

## 1973-2008

	Project	Location	Amount Financed
1973	St. Joe Minerals Corporation	Herculaneum	\$ 7,000,000
			<b>TOTAL:</b> \$ 7,000,000
1974	Union Electric Company	St. Louis	\$ 16,500,000
			<b>TOTAL:</b> \$ 16,500,000
1975	Mobay Chemical Corporation	Kansas City	\$ 7,500,000
	Alpha Portland Industries, Inc.	St. Louis	\$ 1,900,000
	Union Electric Company	St. Louis	\$ 22,000,000
	Mobay Chemical Corporation	Kansas City	\$ 3,500,000
	Amco Corporation	Kansas City	\$ 123,350,000
	<b>TOTAL:</b>		<b>\$ 158,250,000</b>
1976	Noranda Aluminum Company	New Madrid	\$ 10,500,000
	American Cyanamid Company	Hannibal	\$ 9,120,000
	<b>TOTAL:</b>		<b>\$ 19,620,000</b>
1977	Standard Oil (AMOCO) Company	Kansas City	\$ 6,450,000
	Great Lakes Carbon Corporation	St. Louis	\$ 7,000,000
	Kansas City Power & Light Company	Kansas City	\$ 20,000,000
	Union Electric Company	St. Louis	\$ 27,085,000
	<b>TOTAL:</b>		<b>\$ 60,535,000</b>
1978	Mobay Chemical Corporation	Kansas City	\$ 11,000,000
	Mobay Chemical Corporation	Kansas City	\$ 825,000
	Kansas City Power & Light	Kansas City	\$ 31,000,000
	Gulf - Western Industries, Inc.	Cape Girardeau	\$ 11,000,000
	Monsanto Company	St. Louis	\$ 2,370,000
	Empire District Electric Company	Kansas City	\$ 8,000,000
	<b>TOTAL:</b>		<b>\$ 64,195,000</b>
1979	Monsanto Company	St. Louis	\$ 10,250,000
	Mobay Chemical Company	Kansas City	\$ 11,000,000
	American Cyanamid	Hannibal	\$ 3,700,000
	Monsanto Company (Queeny Plant)	St. Louis	\$ 2,900,000
	<b>TOTAL:</b>		<b>\$ 27,850,000</b>
1980	Associated Electric Cooperative, Inc.	Thomas Hill	\$ 95,000,000
	Alpha Portland Industries, Inc.	St. Louis	\$ 1,450,000
	River Cement Company	Festus	\$ 5,700,000
	Standard Oil (AMOCO) Company	Kansas City	\$ 8,300,000
	Great Lakes Container Corporation	St. Louis	\$ 800,000
	Union Electric Company	St. Louis	\$ 60,000,000
	American Cyanamid Company	Hannibal	\$ 3,450,000
	St. Joseph Light & Power Company	St. Joseph	\$ 5,300,000
	<b>TOTAL:</b>		<b>\$ 180,000,000</b>
1981	Associated Electric Cooperative, Inc.	New Madrid	\$ 36,000,000
	City of Wentzville (GM Plant)	Wentzville	\$ 6,350,000
	Union Electric Company	St. Louis	\$ 45,000,000
	<b>TOTAL:</b>		<b>\$ 87,350,000</b>

	<b>Project</b>	<b>Location</b>	<b>Amount Financed</b>	
<b>1982</b>	Associated Electric Cooperative, Inc.	Thomas Hill	\$	71,000,000
	Associated Electric Cooperative, Inc.	Thomas Hill	\$	50,000,000
	Associated Electric Cooperative, Inc.	Thomas Hill	\$	73,000,000
	Associated Electric Cooperative, Inc.	Thomas Hill	\$	12,000,000
	Noranda Aluminum, Inc.	New Madrid	\$	45,000,000
	Union Electric Company	St. Louis	\$	20,000,000
	Monsanto Company	St. Louis	\$	9,325,000
	Associated Electric Cooperative, Inc.	Thomas Hill	\$	55,900,000
	Grant Anticipation Notes, 1982	various locations	\$	24,500,000
		<b>TOTAL:</b>	<b>\$</b>	<b>360,725,000</b>
<b>1983</b>	St. Joseph Light & Power Company	Kansas City	\$	5,600,000
	Community Development Program, 1983	various municipalities	\$	18,000,000
	Grant Anticipation Notes, 1983	various municipalities	\$	44,100,000
	Associated Electric Cooperative, Inc.	New Madrid	\$	44,100,000
		<b>TOTAL:</b>	<b>\$</b>	<b>111,800,000</b>
<b>1984</b>	Union Electric Company	St. Louis	\$	160,000,000
	Lone Star Industries, Inc.	Cape Girardeau	\$	9,100,000
	Monsanto Company	St. Louis	\$	2,890,000
	Union Electric Company	St. Louis	\$	47,500,000
	Associated Electric Cooperative, Inc.	Thomas Hill	\$	153,125,000
		<b>TOTAL:</b>	<b>\$</b>	<b>372,615,000</b>
<b>1985</b>	Union Electric Company	St. Louis	\$	126,500,000
	Community Development Program, 1985	various municipalities	\$	15,000,000
	Grant Anticipation Notes, 1985	various municipalities	\$	90,000,000
	Chrysler Corporation	St. Louis	\$	16,000,000
	Mobay Chemical Corporation	Kansas City	\$	1,600,000
	Reynolds Metal Company	Kansas City	\$	750,000
		<b>TOTAL:</b>	<b>\$</b>	<b>249,850,000</b>
<b>1986</b>	Grant Anticipation Notes, 1986	various municipalities	\$	65,000,000
			<b>TOTAL:</b>	<b>\$</b>
<b>1988</b>	Community Development Note Program, 1988	various municipalities	\$	15,000,000
	Monsanto Company	St. Louis	\$	7,850,000
			<b>TOTAL:</b>	<b>\$</b>
<b>1989</b>	Grant Anticipation Notes, 1989	various municipalities	\$	14,850,000
	St. Joseph Light & Power Company	St. Joseph	\$	5,600,000
			<b>TOTAL:</b>	<b>\$</b>
<b>1990</b>	Union Electric Company	St. Louis	\$	60,000,000
			<b>TOTAL:</b>	<b>\$</b>
<b>1991</b>	City of Springfield	Springfield	\$	32,650,000
	City of Lee's Summit	Lee's Summit	\$	9,695,000
	Noranda Aluminum, Inc.	New Madrid	\$	45,000,000
	Metropolitan Sewer District	St. Louis	\$	68,000,000
	St. Louis County Water Company	St. Louis	\$	25,000,000
	Missouri Cities Water Company	various locations	\$	4,500,000
		<b>TOTAL:</b>	<b>\$</b>	<b>184,845,000</b>

	<b>Project</b>	<b>Location</b>	<b>Amount Financed</b>	
<b>1992</b>	Union Electric Company	St. Louis	\$	42,685,000
	State Revolving Fund	various locations	\$	13,550,000
	State Revolving Fund, MSD	St. Louis	\$	85,000,000
	St. Louis County Water Company	St. Louis	\$	25,000,000
	Raytown Water Company	Raytown	\$	3,000,000
	Tri-County Water Company	Jackson, Cass & Lafayette Cos.	\$	8,365,000
	Middlefork Water Company	Maryville	\$	2,000,000
	SRF Multiple Participant	various locations	\$	48,295,000
		<b>TOTAL:</b>	<b>\$</b>	<b>227,895,000</b>
<b>1993</b>	Kansas City Power & Light	Kansas City	\$	31,000,000
	Union Electric Company	St. Louis	\$	47,500,000
	Missouri-American Water Company	St. Joseph	\$	5,000,000
	St. Louis County Water Company	St. Louis	\$	15,000,000
	Utilicorp United	Kansas City	\$	5,000,000
	Chrysler Corporation	St. Louis	\$	16,000,000
	Monsanto Company	St. Louis	\$	14,520,000
		<b>TOTAL:</b>	<b>\$</b>	<b>134,020,000</b>
<b>1994</b>	SRF, Multiple Participant	Statewide	\$	22,425,000
	Union Electric Company	St. Louis	\$	44,000,000
	Kansas City Power & Light	Kansas City	\$	12,366,000
	Associated Electric Co-op	Springfield	\$	27,375,000
	Empire District Electric	Springfield	\$	8,000,000
	Metropolitan Sewer District	St. Louis	\$	50,000,000
	American Cyanamid	St. Louis	\$	3,450,000
		<b>TOTAL:</b>	<b>\$</b>	<b>167,616,000</b>
<b>1995</b>	SRF, Multiple Participant	various locations	\$	12,215,000
	SRF, Multiple Participant	various locations	\$	43,230,000
	SRF, Multiple Participant	various locations	\$	30,000,000
	SRF, Multiple Participant	various locations	\$	17,450,000
	SRF, Multiple Participant	various locations	\$	11,463,000
	SRF, Multiple Participant	various locations	\$	18,000,000
	St. Joseph Light & Power	St. Joseph	\$	5,600,000
	St. Louis County Water Company	various locations	\$	12,000,000
	St. Joseph Light & Power (refund)	St. Joseph	\$	5,600,000
		<b>TOTAL:</b>	<b>\$</b>	<b>155,558,000</b>
<b>1996</b>	SRF, Multiple Participant	various locations	\$	26,410,000
	Associated Electric Cooperative	Springfield	\$	127,415,000
	Henry County Water	Henry County	\$	13,000,000
	SRF, Multiple Participant	various locations	\$	4,545,000
	SRF, Multiple Participant	various locations	\$	14,185,000
	SRF, Multiple Participant	various locations	\$	24,000,000
		<b>TOTAL:</b>	<b>\$</b>	<b>209,555,000</b>
<b>1997</b>	Missouri-American Water Company	various locations	\$	6,000,000
	St. Louis County Water Company	various locations	\$	20,000,000
	SRF, Multiple Participant	various locations	\$	23,600,000
	SRF, Multiple Participant	various locations	\$	24,060,000
	SRF, Multiple Participant	various locations	\$	15,785,000
	SRF, Multiple Participant	various locations	\$	2,500,000
	SRF, Multiple Participant	various locations	\$	22,235,000
	SRF, Multiple Participant	various locations	\$	5,730,000
	Bayer Corporation (refund)	Kansas City	\$	1,600,000
		<b>TOTAL:</b>	<b>\$</b>	<b>121,510,000</b>



	<b>Project</b>	<b>Location</b>	<b>Amount Financed</b>	
<b>1998</b>	SRF, Multiple Participant	various locations	\$	14,015,000
	Missouri-American Water Company (A)	various locations	\$	4,500,000
	SRF, Multiple Participant	various locations	\$	16,480,000
	St. Louis County Water Company (A)	various locations	\$	25,000,000
	<b>TOTAL:</b>		\$	<b>59,995,000</b>
<b>1999</b>	AmerenUE(A)	various locations	\$	60,000,000
	AmerenUE(B)	various locations	\$	50,000,000
	AmerenUE(C)	various locations	\$	50,000,000
	Missouri-American Water Company (B)	various locations	\$	19,000,000
	SRF, Multiple Participant	various locations	\$	45,900,000
	SRF, Multiple Participant	various locations	\$	47,970,000
	Raytown Water Company	Raytown	\$	2,670,000
	St. Louis County Water Company	various locations	\$	40,000,000
<b>TOTAL:</b>		\$	<b>315,540,000</b>	
<b>2000</b>	Tri-County Water Authority	various locations	\$	14,760,000
	SRF, Multiple Participant	various locations	\$	13,870,000
	AmerenUE(A)	various locations	\$	63,500,000
	AmerenUE(B)	various locations	\$	63,000,000
	AmerenUE (C)	various locations	\$	60,000,000
	Missouri-American Water Company	various locations	\$	29,000,000
	SRF, Multiple Participant	various locations	\$	52,640,000
	SRF, MSD-St. Louis (refund)	various locations	\$	72,545,000
<b>TOTAL:</b>		\$	<b>369,315,000</b>	
<b>2001</b>	SRF, Multiple Participant	various locations	\$	41,485,000
	Middlefork Water Company	various locations	\$	1,620,000
	SRF, Multiple Participant	various locations	\$	13,930,000
	SRF, Multiple Participant	various locations	\$	122,060,000
<b>TOTAL:</b>		\$	<b>179,095,000</b>	
<b>2002</b>	Missouri Energy Efficiency LL Program	various locations	\$	4,910,000
	Missouri-American Water Company	various locations	\$	15,000,000
	SRF, Multiple Participant	various locations	\$	29,545,000
	SRF, Multiple Participant	various locations	\$	112,410,000
<b>TOTAL:</b>		\$	<b>161,865,000</b>	
<b>2003</b>	Little Blue Valley Sewer District	Independence	\$	88,915,000
	SRF, Multiple Participant	various locations	\$	103,065,000
	SRF, Multiple Participant	various locations	\$	39,940,000
<b>TOTAL:</b>		\$	<b>231,920,000</b>	
<b>2004</b>	SRF, Multiple Participant (A)(refund)	various locations	\$	77,625,000
	SRF, Multiple Participant (B)	various locations	\$	179,780,000
	SRF, Multiple Participant (C)	various locations	\$	27,895,000
<b>TOTAL:</b>		\$	<b>285,300,000</b>	
<b>2005</b>	Missouri Energy Efficiency LL Program	various locations	\$	13,760,000
	SRF, Multiple Participant (A)	various locations	\$	53,060,000
	SRF, Multiple Participant (C)	various locations	\$	39,895,000
<b>TOTAL:</b>		\$	<b>106,715,000</b>	

	Project	Location	Amount Financed
2006	Missouri Energy Efficiency LL Program	various locations	\$ 14,813,137
	SRF, Multiple Participant (A)	various locations	\$ 87,505,000
	SRF, Multiple Participant (C)	various locations	\$ 85,210,000
	<b>TOTAL:</b>		<b>\$ 187,528,137</b>
2007	Missouri-American Water Company	various locations	\$ 57,480,000
	SRF, Multiple Participant (A)	various locations	\$ 57,430,000
	SRF, Multiple Participant (B)	various locations	\$ 22,105,000
	<b>TOTAL:</b>		<b>\$ 137,015,000</b>
2008	Kansas City Power and Light	Kansas City	\$ 23,400,000
	Associated Electric Cooperative (2008)	Springfield	\$ 71,550,000
	SRF, Multiple Participant (B)	various locations	\$ 56,720,000
	<b>TOTAL:</b>		<b>\$ 151,670,000</b>



*These five-foot stalks of Switch grass seem to touch the sky on this 2,900-acre farm near Petersburg, which is about 10 miles north of Boonville. The farm, which is owned by Gene Sandner, is about 1,000 yards from the Missouri River.*

*Sandner has been growing this biofuel for about seven years and about 100 acres of his farm land is devoted to Switch grass. Switch grass is economical and compares favorably to other grains and crops and costs about \$75 an acre to plant. As a cash crop, it is planted only once and it is ready to harvest after the third year. Also, Switch grass grows very thick and dense. Therefore, it holds the soil for other crops in nearby fields and stabilizes soil and creek banks during periods of heavy rain.*

*The greatest benefit is its fuel value, about 7,500 BTUs per pound. While coal is significantly higher (13,000 BTUs per pound), there are environmental concerns with burning coal. Local officials in several Missouri communities are researching the advantages and disadvantages of Switch grass as a bio fuel that can possibly supplement and support other resources in a diversified energy program.*

# Brownfields Loan Program

## Brownfields Create Opportunities, Stimulate Economic Development

Are you a mayor or city manager? Are you an entrepreneur or developer? Maybe, you are director of a community organization or association that is interested in revitalizing your neighborhood? If so, the EIERA can provide project assistance.

A couple of years ago, in partnership with the U.S. Environmental Protection Agency, the Authority established a revolving loan program that provides low-cost assistance for the cleanup of Brownfield sites. In particular, the EIERA staff focuses on small communities in rural or urban areas that have properties contaminated with hazardous or petroleum waste.

“The Brownfields Revolving Loan Program, blended with other financial resources, can provide an opportunity for community leaders to transform abandoned buildings and properties into commercial entities that create jobs, raise property values, and enhance neighborhoods,” said board secretary Jason Morgan. “Also, a revitalized brownfield project could be the foundation for an industrial park.”

Brownfields are underutilized properties that are frequently located on a main road in the center of town. Historically, the business community, commercial lenders and local officials have hesitated to develop these sites because of perceived contamination and other environmental issues that may taint the property’s value. Some examples

of potential sites are abandoned restaurants, dry cleaners, gasoline stations, warehouses or manufacturing plants.

Except for state agencies, any public or private entity may be eligible for loans. Staff members emphasize that loan amounts are flexible under the Brownfields program. Any developers or local officials that are interested should submit a pre-application form to determine eligibility. Once that form is completed, then a more detailed application is required with plans for cleanup and redevelopment.

The EIERA staff works closely with the Brownfields Voluntary Cleanup Program, which is housed under the Missouri Department of Natural Resources. When all cleanup phases meet department and federal guidelines, DNR will issue an official letter that states that the property is “clean.” Then, this letter can be presented to a bank or other financial institution, indicating that site redevelopment can begin.

To obtain an application or project information call EIERA at (573) 751-4919 or fax a letter to (573) 635-3486. The Authority’s address is Post Office Box 744, Jefferson City, MO 65102. Also, you can obtain an application online at [www.dnr.mo.gov/eiera](http://www.dnr.mo.gov/eiera).

**“The Brownfields Revolving Loan Program, blended with other financial resources, can provide an opportunity for community leaders to transform abandoned buildings and properties into commercial outlets that create jobs, raise property values, and enhance neighborhoods. Also, a revitalized brownfield project could be the foundation for an industrial park.”**

*Jason Morgan  
Secretary of the Authority*



# Brownfields Loan Program

The Authority staff works closely with the Department of Natural Resources (DNR) and DNR's Brownfields/Voluntary Cleanup Program in the administration of EIERA's low-cost loan program to cleanup brownfield sites. Several years ago, the DNR staff provided assistance to civic and community leaders to redevelop this historic property on Southwest Boulevard in Kansas City. The project is briefly summarized on this page.

## Kansas City Terminal Railway

Abandoned several years ago, these buildings, including the roundhouse (top photo), were built in 1914 as a rail yard. The rail yard was used to service passenger coaches and locomotives from Union Station. The Hispanic Economic Development Corporation (HEDC) bought the property. Then, in 2000, HEDC partnered with DST Realty Inc. to clean up the 22-acre property.

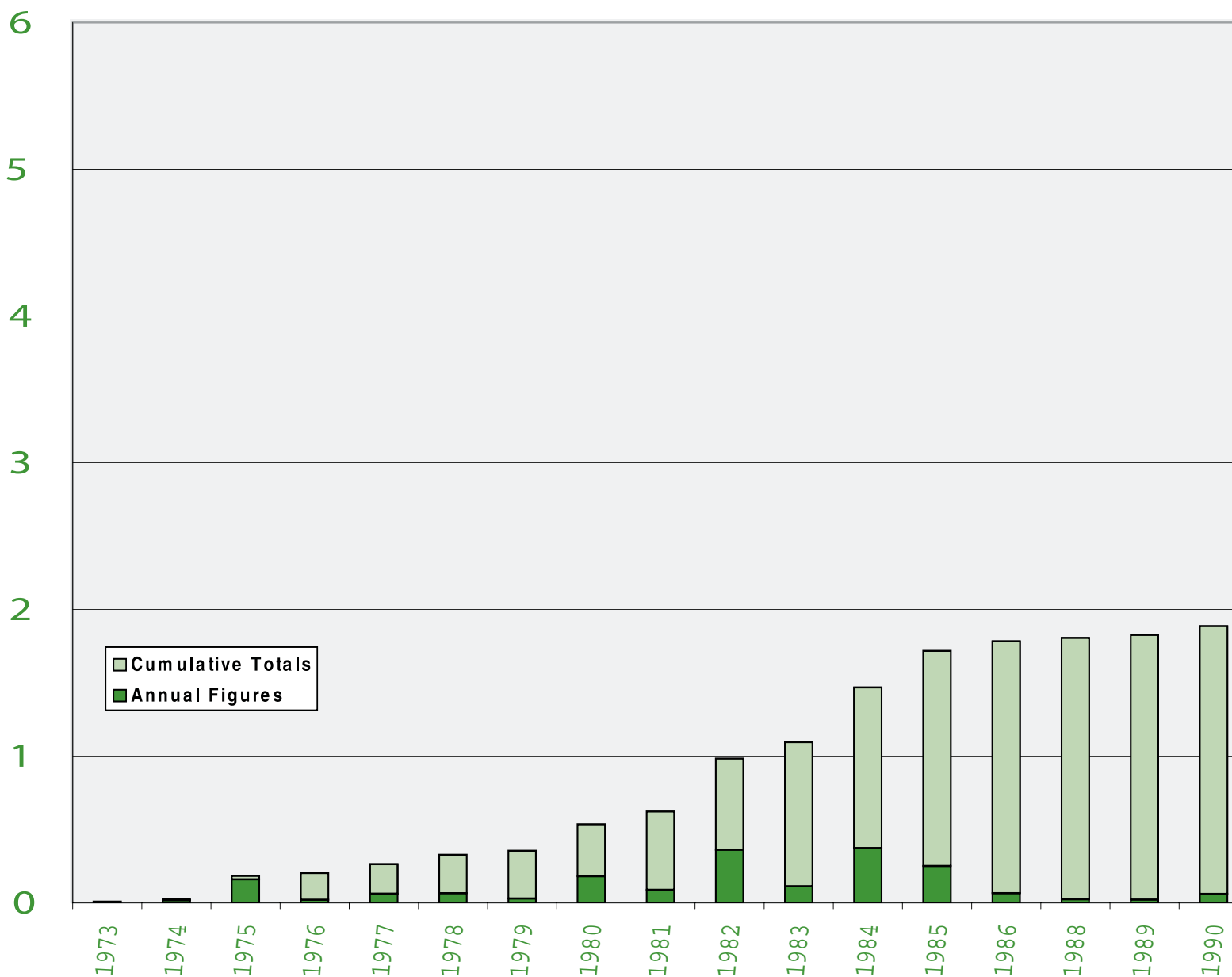
More than 60,000 cubic yards of contaminated soil and cinders were removed from the rail yard, including lead paint, asbestos, arsenic, and several underground storage tanks. The new Westside Business Park was approved for various state tax credits, state grants, and federal HUD loans.

Today, DST Output is now the primary tenant of the Westside Business Park (bottom photo), which includes 110,000 square feet of light industrial space and approximately 65,000 square feet of office space in the renovated roundhouse. The remediation project was begun on March 1, 1999, and completed on Dec. 6, 2000. The project has created more than **600 jobs** and the market and assessed property values have increased **576 percent**.

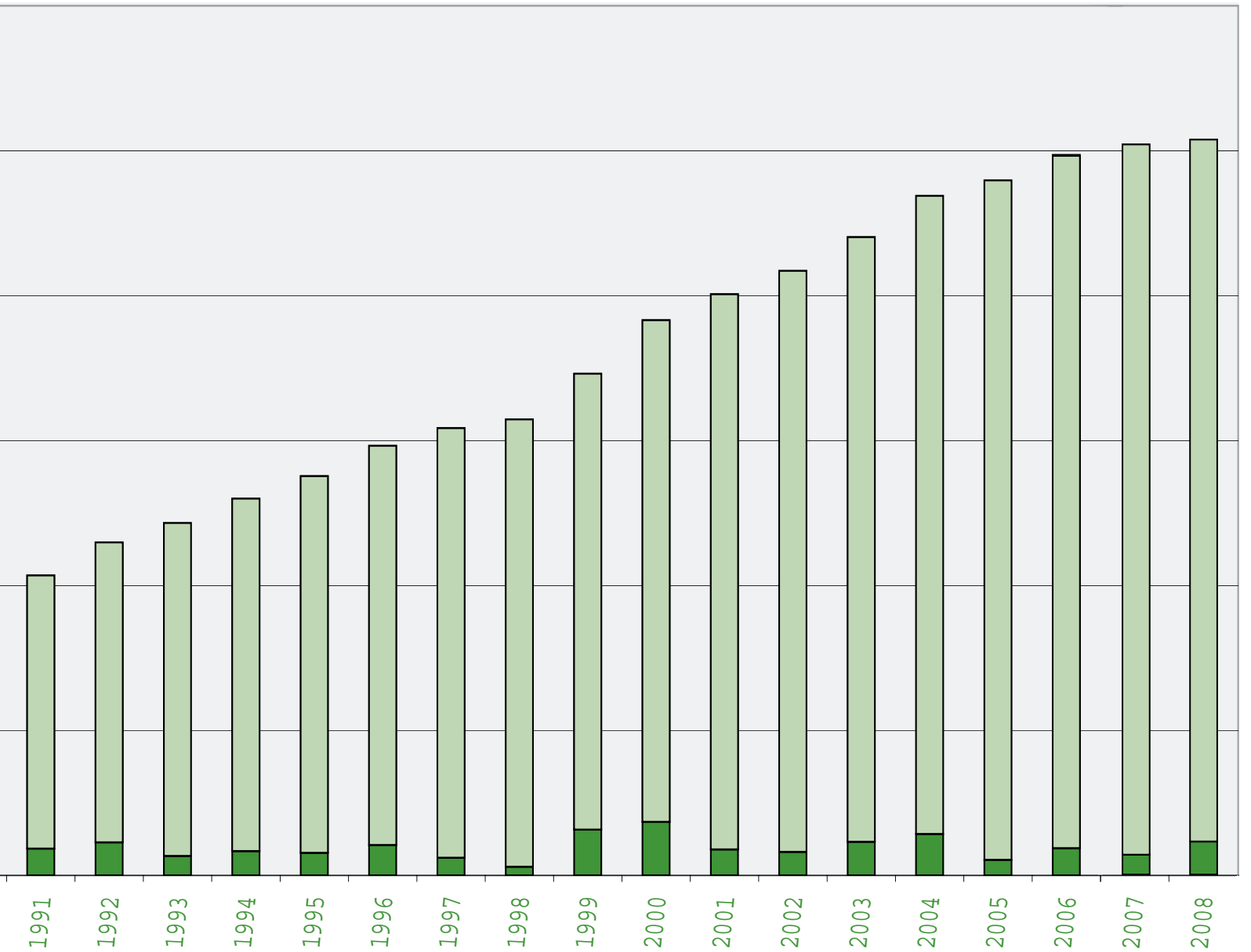


## Annual and Cumulative Totals, 1973-2008

(\$ Billions)



# Summary of Bond Issuances





# Energy Loan Program

## University City Schools are Lighting Up the District

What do Tennessee Williams, Dave Garroway, Kenneth Kranzberg, Nellie, Bernard Gilkey, Margaret Williams, and 1,229 new lights have in common?

Give up? Well, all of them are “fixtures” at University City High School, located in University City, a community of 38,000, about five miles west of downtown St. Louis. Williams the famous playwright, Garroway, a star of daytime television and the first host of TV’s “Today Show,” Superstar Rapper Nellie, former Cardinal outfielder Gilkey and former Authority board member Kranzberg, all graduated from University City High School. They are honored with their pictures on the school’s “Wall of Fame.”

“It was a great experience going to school there...I have a lot of fond memories of my high school days,” said Kenneth Kranzberg, vice chairman of the Authority from 1990 to 1995. Kranzberg has been a successful St. Louis businessman for 49 years and is currently president of TricorBraun an industry leader in the development of container and packaging products.

Well, there’s more. While she didn’t graduate from University City High School, Margaret Williams is a 37-year educator and chairs the social studies department and coaches the school’s award-winning Mock Trial Team. And Williams isn’t just any teacher – she is the 2008-2009 Missouri Teacher of the Year.

Now, about those 1,229 new light “fixtures.” In fiscal year 2003, the University City School District received a **\$4.4 million** low-cost loan from the Missouri Energy Efficiency Leveraged Loan Program. “Since it was established in 2000, the program has provided more than \$32 million statewide

to finance energy improvements for schools and public buildings,” said Deron Cherry, treasurer of the Authority.

The “old” lights in the high school were replaced with 1,229 energy efficient light fixtures. Also, school officials installed four new modular hot water boilers to replace two older, inefficient steam boilers. Approximately 200 energy efficient windows were installed as well as motion sensors and computer controls to run the equipment and monitor temperatures when the building is unoccupied. With all the energy improvements, officials expect to save more than **\$137,000**, annually, just at the high school.

Nestled in a residential area on 82nd Boulevard, about a mile from the high school, is Barbara C. Jordan

*(Continued on page 23)*



*School officials installed more than 200 energy efficient windows and 1,229 lights in the high school. With the energy improvements at University City High School, officials expect energy savings to exceed \$137,000, annually.*

# Energy Loan Program



*These 7-foot energy efficient, hot water boilers were installed in several district schools to replace inefficient, steam-operated boilers. The boilers are computer-controlled and can monitor the temperatures or shut down the units completely when the buildings are unoccupied. Energy experts estimate that the new boilers are responsible for 33 percent of the energy savings, district-wide.*

Elementary School, named after the distinguished Texas congresswoman. At this school, which was selected in 2003 as one of the *top 10 most improved schools in Missouri*, officials installed 420 energy efficient lights, a new heating plant, as well as motion sensors, computer controls, and pipe and attic insulation.

On Groby Avenue, at the Brittany Woods Elementary School, 1,121 new energy efficient lights were installed in the classrooms, offices and the library. At this school, which has 546 students, new hot water boilers, motion sensors and computer controls were installed, too.

In total, 6,987 energy efficient lights were installed throughout the district. “New lights and equipment were

installed in 12 buildings. Based on all the improvements throughout the school district, officials project that energy savings will exceed \$392,000, annually,” said Jason Morgan, secretary of the Authority.

“Today, under these economic conditions, anytime a school district can save thousands of dollars means other important educational programs and school projects may continue without the threat of being suspended or cancelled,” said Joylynn Wilson, superintendent of the University City School District, which has 3,300 students. “The state loan was very beneficial – it has helped to make classrooms, libraries,

*(Continued on page 24)*

*In total, school officials installed 6,987 energy efficient lights throughout the district, including classrooms, libraries and cafeterias. The elementary school, where this cafeteria is located, has 268 students. School officials installed 420 energy efficient lights, new boilers and motion sensors, and pipe and attic insulation.*



# Energy Loan Program

and cafeterias much brighter and our energy system more efficient.”

In 1975, Tim Michels founded Energy Solutions, Inc., which is a St. Louis-based energy consulting firm. Michels served as the consultant to district officials and designed and assisted in the implementation of all the energy improvements. Energy Solutions has six

employees and is a partner in a larger joint venture called the Energy Design Group. This group has 40 additional staff people who have expertise on energy issues.

Nationally, Missouri is the first state to administer this type of loan program. The EIERA bonds, which are issued to support the loans, have **\$10.7 million** in reserve which provide the loan subsidy and security against any potential deficient loan payments. The participants repay the loans based on anticipated energy savings and not to exceed a 16-year period. Historically, the loan program has held an Aa2 rating, which is one of the highest ratings available. Moody's Investor Service, a ratings firm based in New York, assigned the rating. The ratings reflect the size, security, and the participants in the loan program, and the high quality of the EIERA-issued bonds in the financial market.

To obtain more information about the Missouri Energy Efficiency Leveraged Loan Program, please contact the Energy Center in Jefferson City at (573) 751-7466.



*This tall building is the Barbara C. Jordan Elementary School, named after the distinguished Texas congresswoman, and was selected one of the top 10 most improved schools in Missouri (2003). Throughout the district, school officials installed new fixtures and equipment in 12 buildings and energy savings will exceed \$392,000, annually.*

**“New lights and equipment were installed in 12 buildings. Based on all the improvements throughout the school district, officials project that energy savings will exceed \$392,000 annually.”**

*Jason Morgan  
Secretary of the Authority*



# Flowers on a Farm



*This beautiful, lilac-colored flower is called an aromatic Aster. It is native to Missouri and one of the last flowers to bloom in the fall. As its name implies, it has more of an aroma than most flowers and bees and butterflies like to hover around it. This photo was taken on the Robt C Kramer farm near Gerald, which is about 50 miles east of Jefferson City.*

# Missouri Department of Natural Resources



*“Providing a vision and resources to address the challenges of our environment.”*

State Environmental Improvement and Energy Resources Authority