

2007

WESTERN LAKE SUPERIOR SANITARY DISTRICT
REPORT TO THE COMMUNITY



Clear Answers for Clean Water™

A young child with blonde hair, wearing a bright green two-piece swimsuit, stands on a sandy beach. The child is smiling and looking towards the camera. In the background, there is a large body of water, a long pier extending into the water, and a lighthouse on the pier. The sky is blue with scattered white clouds. The text 'MOVING FORWARD' is overlaid on the image in a large, white, outlined font.

MOVING FORWARD

LETTER FROM EXECUTIVE DIRECTOR KURT SODERBERG



Kurt N. W. Soderberg
Executive Director

IN EVERY WAY I LOOK AT IT, 2007 WAS AN INCREDIBLE YEAR—
DEMONSTRATING OUR COMMITMENT TO DELIVER OUTSTANDING
SERVICE AT AN AFFORDABLE COST.

The treatment plant continued to provide excellent treatment, marking eight years without a violation of our discharge permit, while staff continued to deliver a broad spectrum of environmental programs implementing new, innovative solutions to help residents dispose of pharmaceuticals and to improve recycling in our region. We made major improvements to the wastewater treatment plant to continue to improve the quality of water we discharge to the St. Louis Bay. Careful management of our investments yielded strong earnings, and negotiating favorable disposal contracts has allowed us to continue to lower electronics recycling fees. At the same time, we've made significant progress in assisting area communities and industries with reducing their inflow and infiltration in order to help eliminate sewer overflows. We are in an extraordinary position to continue to deliver value to stakeholders throughout the region.

Our work remains an essential component of daily life. This annual report highlights the underlying sense of purpose we all share at WLSSD: to protect public health and the environment and to preserve the quality and safety of water resources in our region.

Commitment to excellence is evident in the faces of clean water in our region. The talent and dedication of our employees is illustrated by their extraordinary accomplishments and performance, in spite of the major challenges posed by large construction projects, increasing costs, and increasingly strict regulations.

Today, we are well-positioned to deliver on our promises to the community and our regulators to eliminate sewer overflows. We have made substantial progress on our "plan of action" to eliminate overflows and our negotiations for a consent decree with the U.S. EPA. I am proud to say that WLSSD has delivered on all of its commitments in the plan and more. As the remainder of the plan is implemented, we're firmly committed to working with the community and our customers to find solutions that are affordable as well as effective.

We continue to manage costs carefully, enabling us to come in under budgeted expenses in spite of major increases in energy, chemical and health insurance costs. Further, we have built a strong 10-year capital improvement plan that aims to ensure long-term reliability of WLSSD's system.

These strong performance and financial results confirm our strategy is working well. Our success reflects a continuation of our nearly 30-year history of focusing on performance results, planning and finances.

In keeping with our greater strategic focus, harsh realities emerge. Our ability to contain rate increases is challenged by the rising costs in energy, chemicals and health insurance. In fact, an astonishing 2 percent of our 4.73 percent overall rate increase for 2008 is directly attributable to the sharp increases in electrical costs handed down to WLSSD by Minnesota Power over the past two years. More substantial rate increases are expected in 2008.

WLSSD will face a myriad of challenges in the future. It will take leadership and diligence to ensure that the organization is flexible and responsive enough to navigate through the ever-changing landscape. Discharge limits will become more stringent, eliminating sewer overflows will be demanding on

the District's resources, containing long-term costs and rates will be difficult with soaring costs of energy, chemicals, health insurance and capital improvements, ensuring a sustainable program to manage biosolids will continue to demand our attention, and how we manage solid waste in our region will require ongoing evaluation.

With my retirement planned for the end of June 2008, this will be my final letter to you presenting our annual report. In the future you'll see new challenges and new faces at the District. As the organization moves forward, it will be important that we remember our past while respecting our future. WLSSD has seen nearly 30 years of progress toward clean water in our region. After decades of neglect and decay, our waterways are improved and have become a recreational haven once again. These impressive results are due, in large part, to the commitment and hard work of WLSSD, residents and industries in our area. I am proud of WLSSD's contributions to the health, beauty and promise of our region's clean water resources and look forward to seeing the organization continue to make a difference and strengthen our community. At the same time, I am confident that we have succession planning in place to provide a continuation of strong environmental leadership for the organization.

If you continue to do everything the same way you've always done it, you'll get the same result. With a vision for future opportunities and challenges, our team of staff members will continue to work with industries and residents to explore new ways to assure public health, clean water and a clean environment in the District service area. And, as WLSSD constructs a path forward, it is clear that WLSSD is well-positioned to continue to strengthen and enhance our community. In spite of the challenges, the future is bright.

DISTINGUISHED SERVICE

Executive Director Kurt N.W. Soderberg received one of the clean water industry's highest honors for his accomplishments during nearly 28 years of service to the Western Lake Superior Sanitary District—the National Environmental Achievement Distinguished Service Award from the National Association of Clean Water Agencies.

Those accomplishments include groundbreaking work on mercury reduction and multinational plans to protect Lake Superior.

Among Soderberg's accomplishments:



- Twelve years of service on the Lake Superior Binational Forum and two as U.S. co-chair of the group. The Binational Forum is a citizen-participation group to the U.S. Environmental Protection Agency, Environment Canada, Minnesota, Michigan and Wisconsin that developed a six-party agreement to protect Lake Superior.
- Spearheading groundbreaking research to evaluate the sources of mercury to wastewater systems. The research resulted in the Blueprint for Mercury Elimination, a nationally recognized document providing guidance to the wastewater industry for reducing mercury discharges.
- Leading WLSSD as it received funding for and conducted a zero discharge pilot project to determine what it would take to achieve zero discharge of persistent toxic substances in response to recommendations of the International Joint Commission and the Lake Superior Binational Program.
- Providing testimony on behalf of the National Association of Clean Water Agencies (NACWA) to the U.S. House of Representatives Transportation and Infrastructure Committee about the unmet funding needs of clean water infrastructure and urged the restoration of the State Revolving Loans Fund, which provides loan funding to states.

NACWA PEAK PERFORMANCE AWARDS

WLSSD received the National Association of Clean Water Agencies 2007 Platinum Peak Performance Award, marking eight consecutive years of 100 percent compliance with its federal discharge permit. WLSSD first qualified for the Platinum award in 2004 with five consecutive years of 100 percent permit compliance and has maintained this level of performance ever since. The Platinum award is a testament to outstanding operational performance and is the most prestigious award in the wastewater industry.



In 2007, WLSSD achieved a second year without lost-time injuries with 729 cumulative days. An active safety committee, improved safety programs, communications and trainings have contributed to the reduction of the number and severity of workplace accidents.

MEASURING OUR PROGRESS

WLSSD is firmly committed to maintaining a clean environment, meeting permit requirements and providing a safe, quality workplace for employees. Part of this commitment includes creating and fulfilling concrete, measurable goals that will help achieve these objectives.

WLSSD sets specific goals each year. These goals fall into five key performance categories:

- Safety, Health and Wellness
- Environmental and Community Stewardship
- Operational Excellence
- Organizational Excellence
- Fiscal Responsibility

Special effort is made to establish goals with discrete, clearly measurable outcomes incorporated into the overall goals and performance areas. From there, each work team and individual employees identify measurable goals and activities that will assist in the achievement of the overall District goals. Cross-functional Strategic Teams are responsible to monitor the progress in each of the five performance areas.

WLSSD's goals for 2007 continued to highlight general excellence, and WLSSD achieved exceptional results. **Highlights include increasing electronics recycling by 54 percent, zero lost time injuries, zero mercury violations, zero discharge permit violations, and achieving fiscal responsibility measures of adjusted expenses totaling 98 percent of budget for wastewater and 91.3 percent for solid waste.**

Monthly employee meetings, hosted by the Executive Director, improve awareness of the District's progress toward the achievement of goals. The meetings help to build employee understanding of the goals and increase employee commitment.

ELIMINATING OVERFLOWS



Four overflow storage basins have been built to help eliminate overflows in WLSSD's and the city of Duluth's sewer systems—totaling 4.3 million gallons of storage for excess sewage when capacity of the sewer pipes is exceeded. Up to three more basins will likely be built in Duluth's system in the future to meet federal expectations.

WLSSD continues to make significant progress toward the elimination of rain-related sewer overflows, with the cooperation of the city of Duluth, other municipalities and industrial customers.

WLSSD and city of Duluth are under administrative order from the U.S. Environmental Protection Agency (EPA) to eliminate sanitary sewer overflows in the region. Their 12-year “plan of action” details the actions the City and WLSSD will take to eliminate sewer overflows, focusing on protecting public health and the environment.

Late in 2005, WLSSD and the city of Duluth began negotiating with EPA with the ultimate goal of entering into a legally binding agreement that clearly identifies the activities and schedule of the plan. Failure to perform to the expectations in this “consent decree” could result in legal consequences including fines and development restrictions. In the negotiations, WLSSD aims to continue protecting public and environmental health, while committing to a plan that is affordable for our customers. Negotiations continue to date.

Since the plan of action was submitted in 2004, WLSSD has successfully fulfilled all specified commitments within the timeframes expected. The plan continues through 2016, and capital budgeting is in place to address WLSSD's future work and commitments that remain.

In every case, the strategy is working—reducing public health concerns, reducing pollution and increasing reliability of the sewer system. Overflow storage basins are now located at the most persistent overflow locations. All pumping stations of original vintage in WLSSD's system have been rebuilt and generators are installed and commissioned to provide backup power when needed. These improvements have resulted in elimination of typical rain-related overflows, however overflows will likely continue while the remainder of the plan is implemented. Significant work by the city of Duluth in private homes and businesses plus two to three additional storage basins in the next eight years will be key to a successful long-term solution to problems at the more difficult overflow locations.

Although most of the year passed without rain-related overflows, October 2007 proved to be a disappointment.

The persistent rains in September and October 2007 saturated the ground and resulted in numerous overflows. Although it was disappointing that so many locations did overflow, flow monitoring showed that several communities are successfully reducing inflow and infiltration (I/I). Communities that exceeded their expected flow volumes were asked to explain these exceedances—detailing the causes and their plans to correct deficiencies in their systems.

2007 OVERFLOW ELIMINATION HIGHLIGHTS:

- WLSSD certified that overflows have been eliminated at overflow “Point 18” on June 30, 2008. Elimination of overflows at this series of manholes in far western Duluth is the result of successful inflow and infiltration reduction projects performed in industries like SAPPi Fine Paper and communities such as Cloquet and Carlton in the western portion of WLSSD's service area. With this certification, the city of Duluth and WLSSD have eliminated overflows at 14 of the 18 locations where overflows have chronically occurred.
- The city of Duluth commenced construction on a one-million gallon overflow storage basin near WLSSD's Endion Pump Station at 18th Avenue East on the Lakewalk. Although more storage will be required, the new storage basin will eliminate many overflows at this location.
- WLSSD established flow volume goals for all industries and communities discharging wastewater into WLSSD's regional collection system. WLSSD has required each of these customers to develop comprehensive reduction plans to illustrate how they will eliminate inflow and infiltration from their systems and maintain flows within these targeted levels. Each entity annually submits required reports to WLSSD on activities and progress on their plans. In the consent decree negotiations, it is clear that EPA expects WLSSD to ensure it has sufficient legal authority to enforce the inflow and infiltration reduction requirements being imposed on communities in the District. In late 2008, the WLSSD Board of Directors is expected to pass an Inflow and Infiltration Ordinance to formalize this authority and the activities communities are performing.

CAPITAL PROJECTS

2007 CAPITAL PROJECTS HIGHLIGHTS

Backup power generator - Wastewater treatment plant	\$1.5 million	Apr. 2005 – Oct. 2007
Wastewater treatment plant improvements – clarifiers and flocculation tanks	\$5.1 million	Oct. 2006 – Dec. 2007
Oneota Street pump station replacement	\$2.4 million	July 2007 – present
Effluent filter rehabilitation	\$2.1 million	Aug. 2007 – present

In 2007, WLSSD began a project to rebuild its Oneota Street Pump Station in western Duluth. The station was the last remaining part of Duluth's original system built in the early 1900s and was acquired by WLSSD at startup in September 1978. WLSSD will continue to upgrade and modernize facilities to provide reliable and cost-effective service.



WLSSD is committed to providing quality, affordable services to the community it serves. In 2007, WLSSD continued improving overall performance and reliability of its treatment plant and collection system by completing several major capital projects. WLSSD also has a solid long-term schedule for capital projects for the next decade.

Capital projects in 2007 included replacement of the last pumping station built by the city of Duluth in the 1920s and brought into the WLSSD system in 1978 when it began operation. The new Oneota pump station at 49th Avenue West will provide more reliable and efficient service to the areas it serves in both Duluth and Hermantown.

WLSSD also made major improvements to its treatment plant that will help do an even better job of treating water.

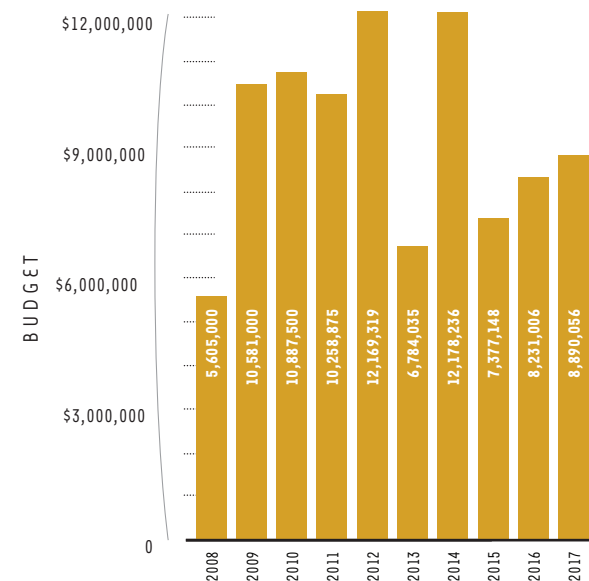
The District refurbished its two flocculation tanks, which were originally built to help remove phosphorus from the wastewater. Because the District's influent characteristics and treatment already result in low phosphorus levels, the renovated tanks can now provide additional settling capacity to remove solids from wastewater.

WLSSD also commenced the complete rebuilding of its 12 mixed media filters in 2007. The filters use layers of coal, gravel, sand and similar materials to remove suspended solids from wastewater before being discharged to the St. Louis River. Because mercury and other metals often are attached to solids, the renovated filters will help WLSSD in its efforts to reduce further the amount of such metals released to the environment.

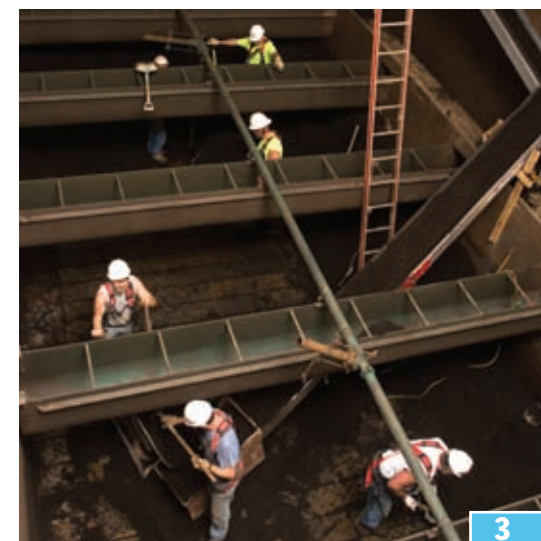
Additionally, many other improvements were made in a continuing effort to sustain WLSSD's high quality operations while keeping rates stable. Through its ongoing Master Planning process, WLSSD is better able to predict capital needs and consequently fund a significant portion of capital expenditures and long-term improvements from current revenues rather than incurring long-term debt.

Construction crews remove layers of coal, sand, gravel and other material in WLSSD's 12-unit multi-media filtration system in late 2007. The complete rehabilitation of these filters will be completed in early summer 2008.

WLSSD TEN-YEAR CAPITAL PLAN



WLSSD is responsible for operating and maintaining 75 miles of interceptor sewers and 17 pump stations spread over a 530-square-mile region. Additionally, WLSSD operates several facilities to assist residents of the region with properly disposing of solid waste. Each year, WLSSD develops a 10-Year Capital Plan to address the short- and long-term needs of this system.



SOLID WASTE 2007 AND BEYOND

The business of successful solid waste management presents many challenges, but meeting them yields vital rewards: a clean and healthy environment. The important solid waste issues WLSSD addressed in 2007—increasing demands on resources for management of problem materials and evaluating how we might recapture resources from waste and how we will manage waste in the future—will continue to challenge our region and will steer our efforts in the future.

E-WASTE

Electronic waste is a growing problem within the District and across the nation. As technologies change and more electronic devices become obsolete, old or broken electronic equipment is often relegated to the garage and basements of many homes. As electronic waste grows, area communities continue to see a sharp rise in the need to develop affordable recycling opportunities and in the amount and frequency of materials abandoned along roadsides or other public areas. A new Minnesota law went into effect in 2007 requiring manufacturers of TVs and computer products to be responsible for recycling the materials they produce. This new law has drastically driven down the costs of recycling electronics—allowing WLSSD and other communities to reduce prices and make disposal more affordable. In October 2007, WLSSD reduced its electronics recycling prices by 50 percent or more at its Materials Recovery Center and increased the amount of electronic devices recycled by 54 percent.



In 2007, WLSSD stepped up its recycling compliance assistance program to help area businesses recycle materials as required by law. Additionally, WLSSD launched an educational campaign directed to businesses to raise awareness about recycling requirements for certain types of materials.

MANDATORY FOOD WASTE DIVERSION ORDINANCE COMPLIANCE SCHEDULE

CATEGORY	COMPLIANCE DATE
Grocery Stores	March 1, 2008
Post-Secondary Institutions	June 1, 2008
Hospitals/Nursing Homes	June 1, 2008
Restaurants/Caterers - Level 3 Large	July 1, 2008
Food Manufacturers	August 1, 2008
Restaurants/Caterers - Level 3 Medium	September 1, 2008
Restaurants/Caterers - Level 3 Small	January 1, 2009
All above categories in Carlton County	March 1, 2009

CONVERSION TECHNOLOGIES WORKGROUP

Recognizing that resources remain in waste headed to the landfill, the District, along with St. Louis County solid waste officials, established a task force in 2006 to investigate emerging technologies that harvest energy and products from materials we currently discard. Representatives from various cities and counties in the region, Minnesota Pollution Control Agency, universities, businesses and utilities explored various technologies and potential projects that could transform the way we manage our solid waste. In late 2007, the group determined that they had reviewed all feasible alternatives and concluded that, although the future holds promise, there are no technologies that are fully developed and ready for implementation. WLSSD will continue to monitor and evaluate these and other technologies in the future.

SEPARATING ORGANIC MATERIALS FROM THE WASTE STREAM

WLSSD has composted food waste since 2000, accepting food waste from businesses that have separated and diverted the material voluntarily. About 50 local businesses—from hospitals to grain elevators—regularly participated in the voluntary program.

Although a substantial number of communities operate residential and commercial food waste diversion programs across the country, WLSSD was the first to mandate the diversion of food residuals from the waste stream in its Ordinance on Solid Waste and Recycling, revised in September 2006. The ordinance includes a mandate requiring certain businesses to separate food waste, but it was not until early 2007 that WLSSD's Board approved an implementation schedule that lays out the compliance deadlines for each business type. Deadlines for compliance begin in March 2008 and continue through early 2009.



PROTECTING AND IMPROVING OUR WATER

WLSSD has consistently returned a high quality effluent to the St. Louis River for 29 years, and 2007 was no exception. WLSSD continued to far exceed the strict federal requirements that ensure pollutants are removed and clean water is discharged into the St. Louis Bay. As a result of WLSSD's performance, the St. Louis River and Bay continue to support a healthy environment and attract recreation and business development.

For the eighth straight year, WLSSD operated with no permit violations, despite challenges posed by large maintenance projects that took crucial parts of the plant off line for much of the year. These improvements will be necessary as permit limits regulating discharged water become increasingly stringent. These permit limits require continued improvement of mercury removal and end-of-pipe disinfection.

Removal rates for solids averaged 96 percent during the year, much better than the 85 percent rate required by environmental permits. Solids removal is an indicator of wastewater treatment effectiveness and includes filterable materials such as wood fibers from paper production.

The average rate of removal for carbonaceous biochemical oxygen demand (CBOD) in 2007 was 94 percent, also well above the 85 percent required. CBOD is a measurement of the strength of wastewater and an indication of how much treatment will be required to clean it. CBOD removal prevents the St. Louis River from receiving pollutants that would deplete oxygen and cause other conditions that could harm fish and other aquatic life.

Nutrients such as phosphorus and nitrogen also were removed at higher rates than required, preventing unsightly, and potentially deadly, algal blooms.

WLSSD continued to improve its plant for even better performance in 2008 and into the future.

Flocculation tanks were renovated to operate as clarifiers to provide more capacity to settle solids out of wastewater. WLSSD also started renovating its mixed media filters, which filter suspended solids out of water before disinfection.

When the project is completed in late spring 2008, WLSSD will improve removal of suspended solids from the water, and therefore removal of pollutants such as mercury, which are often attached to suspended solids.

WLSSD continues its commitment to reducing mercury discharges by testing promising new technologies that may improve mercury removal in the treatment plant. Additionally, WLSSD continues to support and cooperate with researchers to identify and address pollutants of emerging concern.

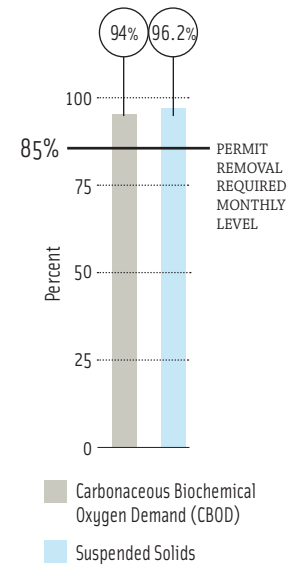
WLSSD CONDUCTS MINNESOTA'S FIRST-EVER PHARMACEUTICAL COLLECTION

On October 6, 2007, WLSSD hosted "Medicine Cabinet Clean-Out Day" —Minnesota's first-ever pharmaceutical collection event, offering residents safe, free disposal of unwanted medications.

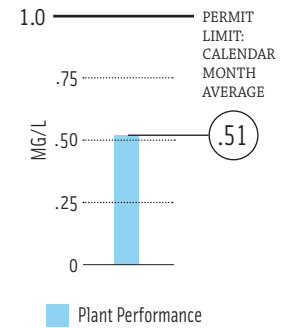
Medications are an emerging issue in water quality. Studies around the United States have found hormones and other pharmaceutical substances in rivers and streams. When medication is flushed, it travels to wastewater treatment plants. Although some medicines break down in treatment, others persist and are discharged into waterways, like Lake Superior, where they can adversely affect fish and other aquatic life.

Medication collection is difficult due to U.S. drug laws that require assistance from pharmacists and law enforcement officers to ensure safe and proper sorting and disposal of all medications. Because it's difficult to sort through the often-conflicting state and federal laws regulating pharmaceuticals, WLSSD will use the October collection and three more events in 2008 as a basis to create a guidance document for other Minnesota communities to conduct safe, legal collection events. The events are funded in part by a grant from the Coastal Zone Management Act, and NOAA's Office of Ocean and Coastal Resource Management, in conjunction with Minnesota's Lake Superior Coastal Program.

2007 Pollutant Removal Rates 12 MONTH AVERAGE



2007 Phosphorus 12 MONTH AVERAGE



FINANCIAL OVERVIEW

The Western Lake Superior Sanitary District's financial performance remained solid in 2008, although sharp increases in energy and chemical costs and the rising costs of health insurance led to a wastewater rate increase for 2008 that was higher than anticipated.

Two major expense categories increased in 2007 substantially more than anticipated. Health insurance increased 25.1 percent, and electrical rates increased 16 percent. This electrical rate increase came on top of an 18 percent rate increase the prior year. The increased costs associated with these rate increases drove WLSSD's 4.73 percent wastewater rate increase for 2008—significantly higher than its budget target of 3.82 percent. Individual municipal and industry customers are billed based upon this increase in charges, as well as their own changes in flow and load.

The District finished the year with strong fund balances for both wastewater and solid waste and continued to pay for capital improvements from current revenues. This “pay as you go” strategy reduces interest costs in future years, allowing WLSSD to keep future rate increases in check. A solid capital improvements plan continues to ensure that WLSSD's infrastructure will be modern and functional.

In the 2008 budget, the 10-year capital plan outlines \$93 million of infrastructure improvements and ongoing maintenance costs. The budget sustains the trend of funding a substantial share of long-term improvements from current revenues rather than long-term debt and also maintains a strong Operations Fund (cash) balance.

To address electricity costs, WLSSD will revise its energy management and conservation plan in 2008 with a goal of reducing overall energy consumption and will be working to determine processes that have high electrical demand in order to identify where changes or alternatives can be employed. WLSSD also is identifying policies and practices that will result in better containment of medical insurance costs and is implementing a wellness program for employees.

2007 WASTEWATER TREATMENT FINANCIAL HIGHLIGHTS

WLSSD not only bills cities and industries based on the quantity of wastewater they send to the plant, but also on the volume of suspended solids and biochemical oxygen demand in the wastewater. These factors reflect how polluted the wastewater is, and therefore, drive the amount of treatment necessary to clean it.

In 2007, higher levels of suspended solids resulted in increased revenues for the District, while flow volumes and biochemical oxygen demand were lower than anticipated.

Suspended solids were 123 percent of the budget. Biochemical oxygen demand was 95 percent of the budget, and flows were 94 percent of the budget. The combination resulted in \$145,200 of increased revenue. Although treatment costs to remove the loadings increased expenses, the loadings translated into increased revenues for the year, resulting in a net surplus for the District.

The Capacity Availability Fee generated \$333,230, which was \$108,230 more than anticipated. This “connection fee” is used to ensure that new customers share the costs of capital improvement costs needed to handle increased flows. WLSSD also increased the fee from \$750 to \$940 per unit, starting in 2008. The Capacity Availability Fee is calculated based on replacement value of the WLSSD system minus depreciation and outstanding bonds.

2007 SOLID WASTE FINANCIAL HIGHLIGHTS

WLSSD's solid waste financial performance continued to be strong for the 2007 period.

Solid waste volumes at the WLSSD transfer station were 3.4 percent higher than budget, resulting in revenues that were 5 percent, or \$107,238, more than budgeted. Tipping fees for 2007 were \$35.28—a rate that is 9 percent lower than the fees in 1999 when the District processed and incinerated solid waste.

WLSSD reduced its rates related to electronics disposal at its Materials Recovery Center as a result of reduced recycling costs. New Minnesota laws taking effect in 2007 and 2008 require manufacturers of electronics to be responsible for recycling the material. The result has been a sharp decline in the cost to recycle electronics in the state.



As a result of effective strategies and strong recycling markets, WLSSD reduced fees at its Materials Recovery Center associated with disposing of many problem materials like electronics, tires and appliances. Lower fees have resulted in a strong increase in the amount of material disposed of at the facility.

2007 SCHEDULE OF REVENUES AND EXPENSES

Wastewater Schedule		2007		
OPERATING INCOME	BUDGET	ACTUAL	FAVORABLE (UNFAVORABLE)	VARIANCE
Municipalities	8,875,112	8,866,236		(8,876)
Industries	13,478,722	13,632,798		154,076
Capacity Availability Fee	225,000	333,230		108,230
Investment Earnings	374,000	877,597		503,597
Other	460,000	538,651		78,651
Total Revenue	23,412,834	24,248,512		835,678
DIRECT EXPENSES				
Payroll	2,770,583	2,680,303		90,280
Fuels	461,000	368,718		92,282
Electricity	2,044,215	2,419,965		(375,750)
Chemicals	1,106,333	1,145,706		(39,373)
Interceptor Cleaning and Repair	180,000	304,825		(124,825)
Other	464,706	490,042		(25,336)
Total Direct Expenses	7,026,837	7,409,559		(382,722)
ALLOCATION OF INDIRECT EXPENSES				
Maintenance, Environmental Programs, Business Services, Planning & Engineering, MIS, Laboratory	6,276,369	6,095,473		180,896
DEBT SERVICE	7,160,000	7,160,000		0
CAPITAL PROJECT PAID FROM REVENUES	2,565,000	2,565,000		0
NET SURPLUS	384,628	1,018,480		633,852

Solid Waste Schedule		2007		
OPERATING INCOME	BUDGET	ACTUAL	FAVORABLE (UNFAVORABLE)	VARIANCE
Tipping Fees	3,627,397	3,665,830		38,433
Material Recovery Center Fees	345,000	385,583		40,583
Solid Waste Management Fee	2,009,958	2,117,196		107,238
Property Tax	778,230	778,230		0
Investment Earnings	35,000	84,482		49,482
Grants	332,254	378,398		46,144
Other	279,976	271,918		(8,058)
Total Revenue	7,407,815	7,681,637		273,822
DIRECT EXPENSES				
Payroll	660,993	588,540		72,453
Solid Waste Disposal Costs	3,654,010	3,624,775		29,235
Contract Services - Disposal Costs	445,324	473,058		(27,734)
Contract Services - Recycling Sheds	85,000	67,272		17,728
Other	444,978	461,997		(17,019)
Total Direct Expenses	5,290,305	5,215,642		74,663
ALLOCATION OF INDIRECT EXPENSES				
Maintenance, Environmental Programs, Business Services, Planning & Engineering, MIS, Laboratory	2,005,621	1,963,549		42,072
DEBT SERVICE	0	0		0
CAPITAL PROJECT PAID FROM REVENUES	227,500	227,500		0
NET SURPLUS	(115,611)	274,946		390,557

THE RISING COST OF ENERGY

WLSSD continues to experience soaring costs for electricity and fuel. Without higher loadings to offset these costs and/or projects that lower WLSSD's overall energy usage, the continued escalation in energy prices will have a significant impact on wastewater treatment rates into the future.

While the District has undertaken a number of projects over the past several years to reduce overall electrical consumption, the savings realized through these projects has been overshadowed by the significant increase in electrical rates. In 2007 alone, WLSSD's electrical rates increased by about 16%. Further, Minnesota Power recently requested that the Minnesota Public Utilities Commission approve a 9.7 percent increase in the electrical base rate to cover investments in renewable energy and environmental controls—clearly a sign that electrical rates will continue to rise at a level far above inflation. To address escalating electrical costs, WLSSD is revising its energy management and conservation plan. Included in this effort is an evaluation of WLSSD's entire operation to identify and complete projects that reduce overall energy usage toward the goal of stable or declining electrical costs into the future through reduced consumption.

While electrical costs make up the largest share of the District's overall energy expenditures, the increase in diesel fuel rates have significantly increased the costs of hauling and spreading biosolids. The District has begun to offset some of these costs by charging a fuel surcharge to some mineland customers. WLSSD continues to evaluate ways to grow its biosolids program while controlling energy usage and costs.

The process of pumping and treating wastewater is very energy intensive. Energy—electricity, diesel fuel, natural gas—comprises approximately 25 percent of WLSSD's non-payroll costs.



BIOSOLIDS SUSTAINABILITY



Photo credit: Lee Bloomquist/Duluth News Tribune

Jim Takala of Iron, MN, plans to use alfalfa grown atop a United Taconite tailings basin to help feed his 220-head herd of dairy cattle.

WLSSD's biosolids program continues to implement initiatives to ensure the sustainability of its Field Green® biosolids program. The initiatives include research into odor reduction and nutrient availability, working with farmers and agricultural agencies to do a more effective job of nutrient management, communication and outreach, and developing partnerships with mining companies doing reclamation work.

These initiatives will help WLSSD meet challenges identified in its 2006 Biosolids Sustainability Master Plan, including:

- A declining agricultural base due to residential development that will limit the land available for land application and result in higher residential density, which makes conflicts with neighbors more likely.
- Regulatory changes, especially regarding phosphorus management, that may limit the frequency that biosolids can be applied to fields.
- Public concerns, especially related to odors, public health, and the environment, that continue to arise.

Odors are an important quality-of-life issue for residents of the region where WLSSD applies biosolids.

WLSSD has partnered with other cities to fund research to determine whether operating the District's anaerobic digesters differently can reduce odors. This is the third major research project into odors. Past research includes a 2003 field study that objectively measured the strength of odors and helped determine what field conditions were most likely to create objectionable odors and a 2004 study that helped WLSSD change the operation of its centrifuges to reduce odors.

WLSSD also has developed a comprehensive public outreach plan that will help educate people about biosolids, including improved response to incidents such as odor complaints. The plan also will promote sustainable relationships with customers and residents and being responsive to public questions and concerns. One key goal of the plan is to expand the land base for the Field Green® biosolids. An expanded land base will reduce the frequency of land application on individual fields and reduce the potential impact on neighbors.

Currently, Field Green® biosolids are applied according to agronomic rates for nitrogen. However, more phosphorus is applied than crops need, and phosphorus can be a pollutant if it runs off into neighboring streams. WLSSD

contracted with the University of Minnesota to conduct research to determine the potential impact phosphorus in WLSSD biosolids could have on water quality. WLSSD also is strengthening its long-standing partnership with the University of Minnesota Extension Service and forging a new relationship with the Natural Resources Conservation Service. The partnerships will help ensure farmers in WLSSD's biosolids program receive nutrients they need for crops while preventing environmental harm.

Mineland reclamation is an important success for the Field Green® biosolids program. Years of research and pilot projects with taconite companies on the Iron Range have resulted in successful reclamation projects on sterile taconite tailings basins. Mineland projects include stabilizing tailings basins with vegetation, helping establish alfalfa for a local dairy farmer who wants to expand his herd, and experimental plots to determine if tailings basins can be used for biomass production.

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WLSSD is governed by a nine-member citizen board. Four members are appointed by the city of Duluth, three by the city of Cloquet, one by the Carlton County cities and townships and one by the St. Louis County cities and townships. The WLSSD Board meets regularly on the first and third Mondays of each month.

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*20 or more years of service

Bold: 25 year anniversary in 2007

**“WATER IS LIFE’S MATTER AND MATRIX,
MOTHER AND MEDIUM. THERE IS NO LIFE
WITHOUT WATER.”**

ALBERT SZENT-GYORGYI, HUNGARIAN BIOCHEMIST AND NOBEL PRIZE WINNER



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