

# Ready for What's Next.

## 2009 Annual Report Holland Board of Public Works

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All content taken verbatim from the online report. View the Full Interactive Annual Report, with employee interviews, detailed statistics, and photos: annualreports.hollandbpw.com/AnnualReport2009/

# A Message From Loren Howard The Holland BPW Annual Report for 2009

We're taking a slightly different approach this year, employing an online format in place of the more traditional press run of thousands of hard copies. In addition to the cost, energy and resource savings achieved through our new web-based format, it also serves to underscore an important message of innovation.

In our report you will find highlights of innovations we have led in recent years, from expanding our fiber optic network to introducing new water distribution and wastewater processing efficiencies, from exploring new energy generation technologies to initiating greater public outreach and education opportunities.

Challenging times demand innovative thinking. That is why, in addition to fulfilling our fundamental mandates of controlling costs and reliability ("keeping the lights on"), our customers have made it clear that they expect the HBPW to think and act with innovation when it comes to meeting their future energy needs.

In 2008 the Board of Public Works conducted an exhaustive six-month period of strategic planning, the most comprehensive exercise of its kind I have experienced during my more than 20 years at the HBPW.

What emerged was a framework for setting our long-term vision, along with a sense of mission shared by everyone in our organization. This shared sense of purpose drives us to keep controlling costs and maintaining reliability in focus while seeking truly sustainable solutions.

We live in an increasingly complex world. The deregulation of our industry a decade ago introduced unanticipated challenges we're still working on. Today, such issues as climate change, energy-supply security and global political realities demand a greater degree of flexibility and innovative thinking. I want to assure you that your HBPW is up to the task... By way of example, HBPW recently conducted a two-year study of carbon capture and sequestration (CCS), a process that involves the



underground storage of carbon dioxide (CO2) emissions released during power generation. We formed a partnership with Praxair, a global expert in specialty gases, to provide the needed carbon capture and containment technology, and submitted a proposal to the US Department of Energy to fund a sequestration demonstration project.

Although our bid for funding ultimately was unsuccessful, we have gained a greater understanding of the promise and potential of CCS technology. We have also worked to explore more reliable and sustainable energy sources, from solar and wind technologies to traditional fossil fuels extracted in more environmentally responsible ways. We firmly believe that maintaining a diverse energy portfolio offers the best preparation for the supply, regulatory and other challenges ahead.

Of course, the HBPW is also charged with distributing and maintaining a safe and reliable water supply, effectively managing wastewater and, more recently, extending the community's communications infrastructure via a growing fiber optic network. The sections that follow provide updates on recent activities in each of these vital services.

Ultimately, the HBPW is a community organization whose success is tied directly to the success and satisfaction of that community. For our part, we are proud of the fact that our municipal services are among the most reasonably priced in the country. Likewise, our reliability ratings consistently rate among the highest in our industry.

We will continue to work hard to maintain the public trust through the wise management of our shared resources and the promotion of innovative ways of doing business.

Loren Howard July 1, 2010

# Innovation in West Michigan Sustainability



Sustainability: making wise use of our natural resources to assure they will meet the needs of future generations – is everyone's responsibility. At the Holland BPW we take this responsibility seriously, from the sustainable practices we employ in our day-to-day operations to the tools and teachings we share with our customers and community.

### Sustainability at the Holland BPW

Sustainability begins at home, and at the Holland BPW we are constantly finding efficiencies, some literally in our own backyard. For example, we have established new landscape management practices that include less frequent mowing for some areas – a simple choice that conserves a significant amount of fuel over the warm-weather months.

### **Energy Smart**

The Holland BPW is engaged with several customer and civic initiatives designed to improve energy use and efficiency. In 2009, the Holland BPW designed and implemented "Energy Smart", our energy efficiency program focused on encouraging energy efficiency to our residential and commercial & industrial customers.

### Our customers saved over 3.2 Million kWh of Electricity

**CFL Bulb Recycling Program** We also offer a CFL bulb recycling program for our residential customers. Old, unbroken CFL bulbs may be dropped off at the BPW Service Center, 625 Hastings Avenue, Holland, MI 49423.

Education is another key component of our public outreach efforts. We are firm believers in the value of CFL and Light-emitting Diode (LED) lighting, which are more energyefficient, less expensive to operate and longer-lasting than traditional incandescent lights. In addition to changing out all of our traffic signals to LED technology in 2009, we continue to convert other municipal lighting throughout Holland to LED's, and provide and install 30,000 LED lights each year in Centennial Park to illuminate the city for the holiday season.

Holland Community Sustainability Committee To further reinforce our commitment to sustainability, the BPW, along with the City of Holland, formed a new committee in early 2009: the Holland Community

Sustainability Committee.

This nine member committee, made up of community citizen representatives, is charged with engaging the greater-Holland community in sustainability measures. In 2010, the Sustainability Committee hosted 19 community forums, which gathered information and input on two important subjects: energy management and water management. The committee will continue to explore opportunities to engage the community on other sustainability efforts in the future.

# Innovation in West Michigan Fiber Optics



The Holland BPW has been building the area's fiber optic network since the early 1990s. What began as an innovative approach to improving communications between our substations has expanded to become a fiber optic infrastructure connecting most of the Holland BPW's geographically distributed electronic equipment.

#### **High-Speed Telecommunications**

This fiber optic structure also provides high-speed telecommunications access to the Greater Holland area's local governments, schools, small and large businesses, medical offices and community service organizations. Our role in the growing fiber universe is to provide a system "backbone" or highway; we do not provide content. The HBPW presently owns nearly 100 miles of fiber optics cable, and provides two service options: Ethernet Bandwidth and Dark Fiber.

### Fiber's Value and Desirability Continues to Grow

#### **New Fiber Lines**

Since 2005, we have added several new fiber customers and expanded the reach of several others. Our newest customers include Magna Donnelly, Technocoat/Nu-Var, T2 Communications, Buhler Prince and Berghorst Enterprises.

Longtime customers, including the Ottawa Area School District and Holland Hospital, continue to connect more of their facilities with Holland BPW fiber.

# Integration with our Infrastructure Fiber optics plays an

increasingly important role in our own infrastructure as well.

Fiber's value and desirability continues to grow. That's why when Internet powerhouse Google announced plans to build and test ultra high-speed broadband networks in a small number of trial networks across the country, we led a community wide effort called the Holland-Google FiberTown Initiative.



Our campaign incorporated city and county proclamations supporting the initiative; letters of support from community and business leaders; a variety of clever, fun and informative videos about Holland; and the use of social media to spread the word, including Facebook, Twitter and LinkedIn. Although Google has yet to announce its selected cities, the outpouring of public support for the FiberTown Initiative shows Holland is a forward-facing community. We envision a time when every home and business in our service area has a lightning-speed connection through fiber to the information superhighway.

# Innovation in West Michigan Electricity



We remain firmly committed to providing reliable electric power in the most energyefficient, cost-effective and environmentally responsible manner possible. Over the past several years we have made considerable progress in achieving these objectives in a number of areas.

#### **Automated Meter Reading**

The HBPW introduced automated meter reading (AMR) in 2005, and today more than 99 percent of all Holland residents benefit from this useful technology. The utilization of AMR across our system has reduced costs, provided more accurate billing, and enabled HBPW to respond more quickly to power outages. Automated metering for our commercial and industrial customers is now nearing completion, as a meter data management system and related software upgrades are in their final stages.

### 99.5% of Residents now have Automated Meter Reading

## Transmission & Distribution

The success of a power utility's Transmission & Distribution (T&D) activity inevitably is determined by its reliability and safety record. Holland BPW is making significant progress in these areas.

#### Coal

Over the past several years the HBPW has been working hard to improve the economics of internal generation by identifying new coal sources.

#### Renewable Energy

Over the last few years we have entered into three significant contracts for renewable energy supply.



Automated Meter Reading (AMR) is just one of many Innovations with Electricity at the BPW

#### **Looking Forward**

We believe that a secure energy future must include a costeffective secure primary power source, effective conservation programs, viable alternative energy solutions and alternative sources for energy purchases - all achievable in an environmentally responsible manner.

# Innovation in West Michigan Water



The Holland area's access to abundant reserves of freshwater is unimaginable in many parts of the world. The Holland BPW takes seriously our role as both a supplier of this vital resource to our customers and a steward charged with maintaining its quality and integrity.

Drawing from Lake Michigan as our source, the HBPW water filtration and distribution system contains 230 miles of water main and supports approximately 13,000 service connections and more than 2,300 fire hydrants. Our water supply is continuously monitored and tested to assure public safety. In recent years we have made several upgrades to systems and equipment to ensure there is always a reliable supply of safe drinking water "on tap."



Award Winning Leadership Jim Van De Wege was nominated for the national award by the AWWA Michigan Section. The AWWA is the world's oldest nonprofit educational society dedicated to the improvement of water quality and supply. Water Quality Report In 2008, the Holland BPW earned the AWWA Michigan Section's Annual Water Quality Report Award.

The honor, administered by the section's Customer Satisfaction Committee, is designed to recognize excellence in drinking water utility customer outreach programs, with specific emphasis on the annual Water Quality Report.

Since 2005, the Water Filtration Plant has employed a process that optimizes the use of treatment chemicals. The process has reduced landfill-bound waste byproducts by up to 30%. Significant savings also have been achieved in related hauling and landfill charges. In 2008, the BPW also renewed a water agreement with Laketown Township. This contract increases delivery from 1.2 million to 1.8 million gallons of water per day. The agreement contains terms under which an additional water filtration plant could someday be built in the township. In 2008, the BPW completed installation of a new water transmission main below Lake Macatawa. This three year effort supports the transmission of up to 15 million gallons of water per day. During construction, the BPW employed directional drilling technology to install a 30-inch 3,200 ft. long, high-density polylene pipe.

2005	2006	2007	2008	2009	2010

In 2009, outdated and corroded sand filter panel instrumentation was replaced with five strategically situated wireless access points located throughout the water filtration plant. Using laptop computers, on-site staff now manages the filters wirelessly from any location within the plant and monitors the building's overall operation and performance. In addition to creating new water management efficiencies. this project was completed significantly under budget. In August 2009, the plant installed an online Ultra Violet (UV) monitor. The fully automatic and precisely calibrated UV 254 system monitors organic material in water and provides advance warming of any changes in water quality. All HBPW records are now digitized and available to our field service teams. This enables our staff to access the information immediately from any location and respond to service calls faster and more accurately than before.

# Innovation in West Michigan Wastewater Treatment



Proper treatment and administration of a municipal wastewater system demands constant vigilance to assure the public's health and safety. The Holland BPW fulfills this mission through the management of a sanitary sewer network that includes almost 190 miles of sewer pipe and 35 sewage lift stations spanning the City of Holland as well as portions of Park, Laketown, Fillmore and Holland Charter Township.

#### **Recent Innovations**

We work continuously to improve and update our wastewater management systems. Recent innovations include the first-phase launch of a recycled, non-potable water system to serve customers' non-drinking needs in the summer months and the kick-off of a pharmaceutical collection program designed to divert controlled substances from our water supply. We also manage to keep sewer back-ups and similar system disruptions to a minimum.

During our fiscal years 2006 through 2009, we replaced over 4 miles and installed more than 3 miles of sanitary sewer main. Mercury Reduction Program Our wastewater treatment plant in 2009 joined the nationally recognized Water and Wastewater Agency Response Network (WARN). The network maintains a mutual aid agreement between its members to come to the aid of their fellow water/wastewater utilities in the event of an emergency affecting water system management.

### Personal Pharmaceutical Collection Program

We teamed with the Ottawa County Health Department in 2009 to conduct a Personal Pharmaceutical Collection program. This initiative amassed over 500 pounds of pills, 30 pounds of medicated creams and lotions and 50 pounds of controlled substances for incineration, effectively directing these materials away from the municipal water supply.



Maintenance & Upgrades At the Waste Treatment Plant, storm drain improvements conducted in fiscal years 2008 and 2009 modified the East Plant's storm drain system so that storm-water discharges are directed into the sanitary sewer on-site rather than into wetlands north of the site.

The improvements were undertaken to prevent any accidental sewage discharge into the Macatawa watershed by sludge haulers loading their trucks at the site.

# Board of Directors Meet the Board of Directors from the Holland BPW

Our Board of Directors is comprised of residents and businesspeople that live and work in our community. In addition to providing insight and decision-making regarding the Holland Board of Public Works, each member is also personally active in the community.



### James Storey

Chairperson

A Holland resident since 1997, Jim Storey has worked for SEMCO Energy and Consumers

Energy. He has also served as a member of the Michigan Liquor Control Commission. Today, Jim operates StoreyLine Communications, a Holland-based public relations, liquor license consulting and campaign management firm.



### Timothy Hemingway

HBPW Board Vice Chair Long-time resident Tim Hemingway worked for SAF Holland for 31 years in various roles

including general manager of operations and international vice president. He also sits on the board of directors of TMD Friction, Luxembourg, and volunteers with the Boys & Girls Club of Greater Holland.



**Richard E. Cook** *HBPW Board Member* Rich has worked at Donnelly, Cascade Engineering, where he served as president

and chief operating officer, and X-Rite as president and CEO. Rich coaches Holland Entrepreneurs on behalf of the West Michigan Science & Technology Initiative through Grand Valley State University.



### Paul Elzinga

*HBPW Board Member* Paul's construction expertise is recognized in

West Michigan through his work with Elzinga & Volkers, Inc., and Paul Elzinga Consulting, PC. Paul's projects have included Holland Community Hospital and the City of Holland Snowmelt project. He also volunteers with the United Way and the Boys & Girls Club.



Diane Haworth

HBPW Board Member

A 15-year Holland resident, Diane most recently served as Sustainability Manager for Haworth,

Inc. Prior to that role, she was a Product Manager and Team Leader for Haworth's China Project during a year's residence in Shanghai. Diane is active in the Holland Community Sustainability Committee and Grand Valley Artists.

# Finance Overview



The Holland Board of Public Works is committed to the principles of sound financial management, financial stability for each of our utilities and careful planning and direction to support the delivery of quality, low-cost services to the Holland area.

### A Strong Performing Asset

Despite the challenging economic conditions our community has faced in recent years, HBPW has remained a strong performing asset to the community, both as a service provider and as an important financial contributor.

### Highlights have included:

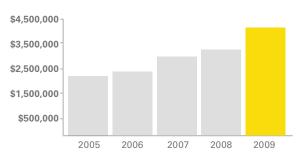
Standard & Poor's rating agency upgraded the Water Utility bond rating to AA, attributing the upgrade to strong financial position, good economic fundamentals, and solid management with a willingness to adjust rates. Technical and financial support of the key efforts to attract \$1 billion in new investment and more than 1000 new jobs through the successful recruitment of the JCI-SAFT and LG Chem battery manufacturing facilities to be located in the Holland community.

# Our electric rates are consistently lower than nearby competitors.

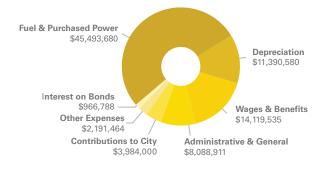
- Capital improvements totaling nearly \$6 million in 2009 alone, to improve our community's power, water and wastewater infrastructure.
- Electric rates that consistently average 15–20% lower than nearby competitors, and are lower than the national average.
- Water rates that are some of the lowest in Ottawa County, and lower than both the Great Lakes region and national averages.

### Contributions to the City and Expenses Breakdown

### Contribution to the General Fund of the City of Holland Fiscal Years 2005-2009



### Fiscal Year 2009 Expenses: \$80,117,164

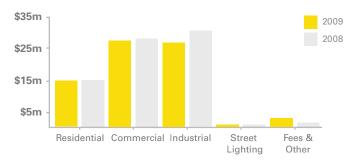


# Finance

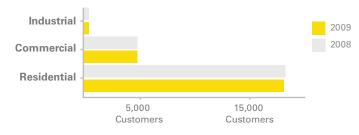
# Electricity

### **Operating Revenues**

Totals for 2009: \$75,466,722 | Totals for 2008: \$79,125,357

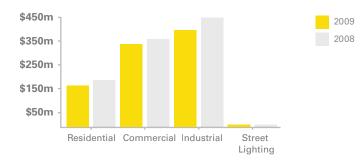


### Average Number of Electricity Customers



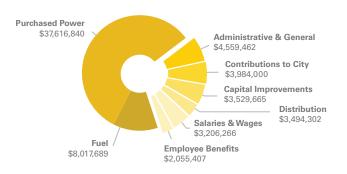
### Electricity: Metered Sales (kWh)

Totals for 2009: 916,726,321kWh | Totals for 2008: 1,012,105,823 kWh



### Use of Customer Dollar

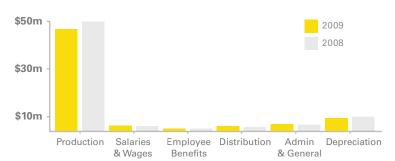
Total Use of Customer Dollar: \$66,463,631



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### **Electricity: Operating Expenses**

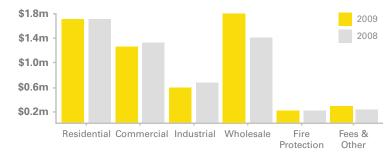
Totals for 2009: \$67,827,040 | Totals for 2008: \$71,261,399



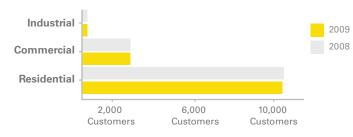
## Water

### **Operating Revenues**

Totals for 2009: \$5,881,210 | Totals for 2008: \$5,694,573

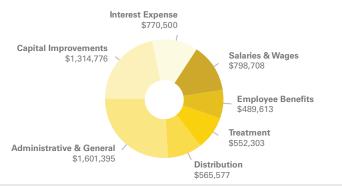


### Average Number of Water Customers



### Use of Customer Dollar

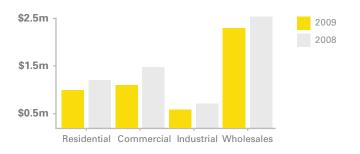
Total Use of Customer Dollar: \$7,527,103



The Holland area's access to abundant reserves of freshwater is unimaginable in many parts of the world. The Holland BPW takes seriously our role as both a supplier of this vital resource to our customers and a steward charged with maintaining its quality and integrity.

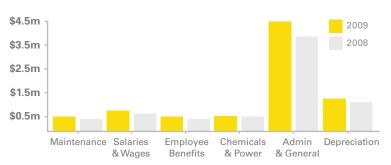
### Water: Metered Sales (CCU)

Totals for 2009: 5,215,984 CCU | Totals for 2008: 6,079,512 CCU



### Water: Operating Expenses

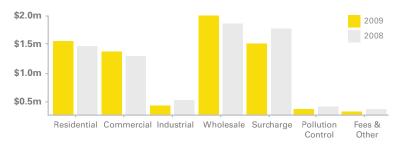
Totals for 2009: \$5,315,683 |Totals for 2008: \$4,904,705



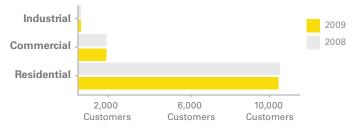
### Wastewater

### **Operating Revenues**

Totals for 2009: \$6,879,454 | Totals for 2008: \$6,976,927

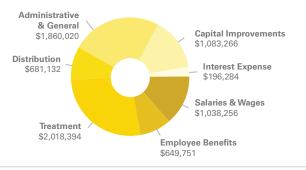


### Average Number of Wastewater Customers



### Use of Customer Dollar: Wastewater

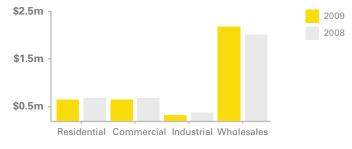
Total Use of Customer Dollar: \$7,527,103



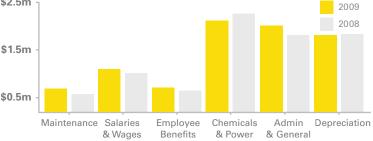
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### Wastewater: Metered Sales (CCU)

Totals for 2009: 3,678,467 CCU | Totals for 2008: 3,632,783 CCU



Wastewater: Operating Expenses
Totals for 2009: \$7,948,570 |Totals for 2008: \$7,782,869
\$2.5m





The Holland Board of Public Works 625 Hastings Avenue, Holland - (616) 355-1500