

# Village of Bayside

## Measuring Green

9075 N. Regent Road  
Bayside, WI 53217

### ICMA ANNUAL AWARDS PROGRAM: Program Excellence: Community Sustainability



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# Village of Bayside - Measuring Green

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The Village of Bayside is a quiet, predominately residential community located on the shores of Lake Michigan. Just ten miles north of downtown Milwaukee, Bayside offers residents the opportunities of “big city” living while remaining a safe, family-orientated place to live, work and play.

Bayside, a community of just over 4,100 residents, is one of the seven communities that comprise the North Shore. With beautiful Lake views, historic presence and a high quality of life, Village residents have come to expect the highest form of service delivery. Unfortunately, the Village was not immune to the same financial struggles suffered by many as the global economy faltered in 2009. The reduction in Wisconsin state shared revenue, interest rate shortcomings and increasing health care costs, and other adverse financial factors impacted the ability to achieve those expectations.

## *Strategic Values*

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The Village has adopted five-long term strategic initiatives that serve as the foundation for service to the residents of Bayside. They include:

***Fiscally Sound:*** *Maintain the Village’s strong fiscal condition, enhance organizational operating efficiencies, and continue to provide high-quality services in the most cost effective manner.*

***Aesthetic Appeal:*** *Enhance the aesthetic character; curb appeal and community-wide events to promote property values, high standards, and connection within the Village.*

***Quality Service Delivery:*** *Provide for the health, safety, and welfare of the community with respect and courtesy at all times; solicit and listen to citizen feedback to improve the quality of services performed, and strive for continued excellence. Promote organizational development through individual leadership, teamwork and valuing our human assets as ambassadors of the Village.*

***Communications:*** *Facilitate effective communications, both internally and externally, to provide vested parties with relevant, timely, and necessary information.*

***Environmentally Responsible:*** *To lead the way in providing environmentally friendly or “green” initiatives to promote a healthy, desirable place to live and enjoy.*

All five areas of emphasis are naturally linked; quality services must also be delivered in a cost-effective manner, and services often can’t be delivered satisfactorily without significant, sustained communications efforts, all of which are sought to be done in an environmentally friendly manner. This award application combines these strategic initiatives.

How did we cut nearly 5 percent of our general fund budget without impacting any service levels? Here is the quick summary of local government leadership, management, and innovation in doing just that.

## *Measuring Green*

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With these intertwined areas of emphasis, the Village implemented several core “Green” initiatives to reduce the Village overall carbon footprint, enhance energy efficiency, promote environmental stewardship in the community, and provide leadership in enhancing our environmental friendliness. The approach was multi-faceted and included green Building, Village Operational and Procedural, Community, Regulatory and Communication initiatives.

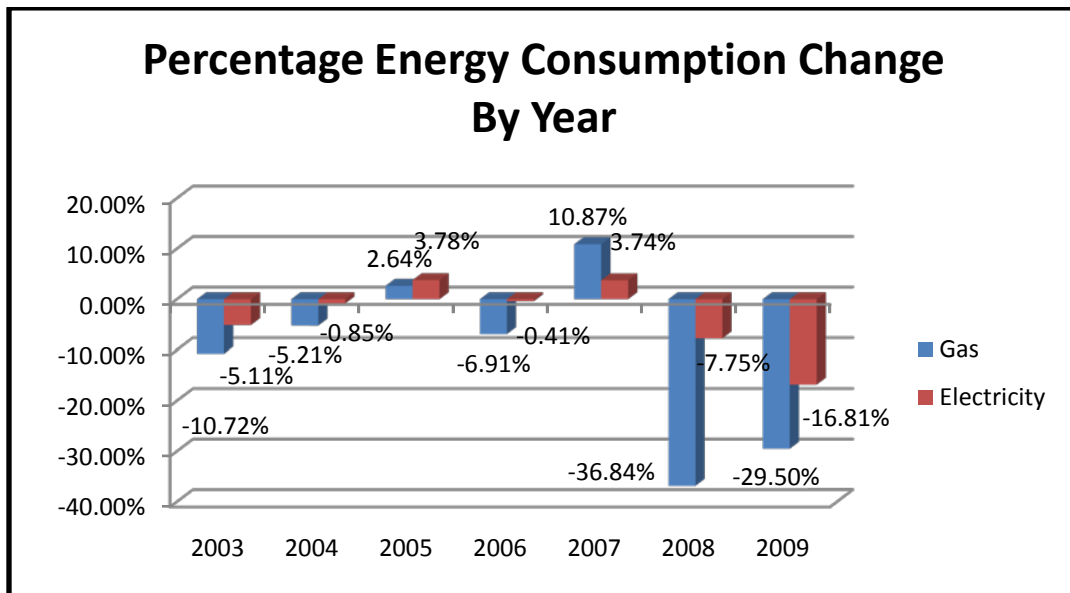
The Village aggressively pursued each initiative and implemented measurements and benchmarks to identify the successes and areas of opportunity. Two areas of most significant focus were the Village’s facility energy consumption reduction initiative and collection services efficiency enhancement initiative.

### *Facility Energy Consumption Reduction Initiative*

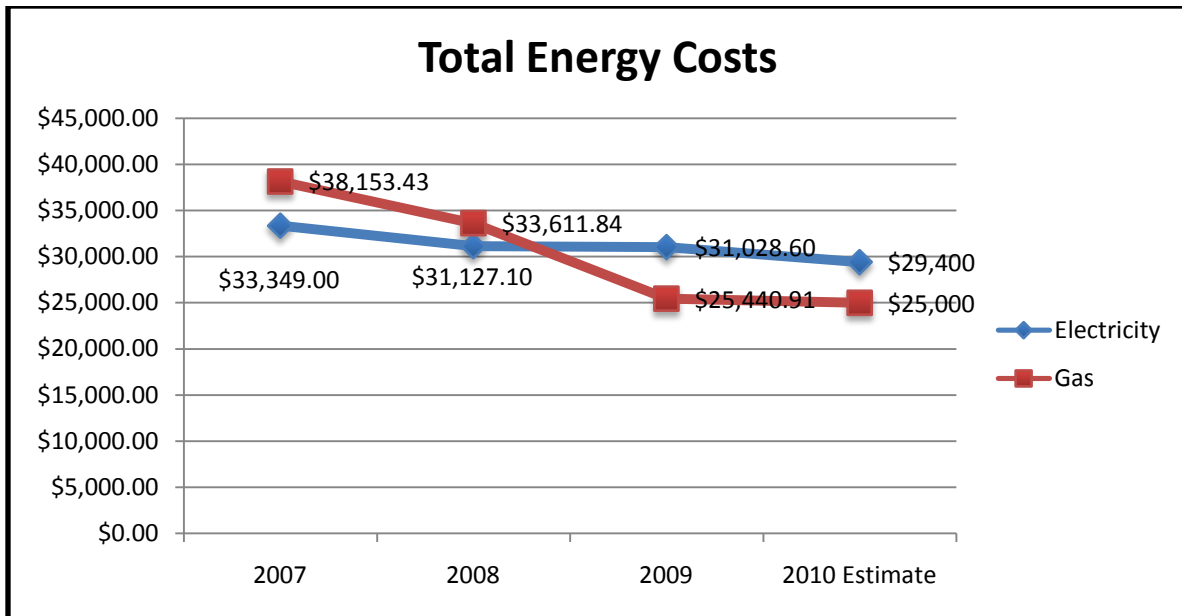
In 2008, the Village established a performance benchmark of reducing total Village building and facility energy (gas and electric) consumption by 10 percent. The Village not only achieved this goal, but actually reduced energy consumption overall by 17.1 percent. To help reach these goals, the following initiatives were implemented:

- Enrolled in the Energy Star for Local Governments program through the US EPA.
- Adopted Wisconsin Office of Energy Independence 25x25 Resolution.
- Conducted audit of energy efficiency identifying additional areas of opportunity to conserve energy.
- Installed energy efficient HVAC system in Village Hall/Police Department facility with 6.6 year payback.
- Installed energy efficient lighting in public works maintenance facilities.
- Installed motion sensor and zone lighting in common areas and large areas.
- Adjusted thermostat temperatures and timing of their operation to reflect building usage patterns.
- Relocated thermostats to more accurately reflect actual temperatures.
- Reduced facility vending machines from 4 to 1 multi-function machine.

For 2009, the Village’s goal was to continue this reduction by reducing overall consumption by an additional 3 percent across the board. As the charts below indicate, that number was met and passed. Overall, energy consumption was reduced by 23 percent in 2009.



Since 2007, Village electrical consumption has reduced by 26 percent. Village gas consumption has reduced by 77 percent. In correlation, overall Village utility costs have reduced by 21 percent.



The Village continues to work toward new ways to reduce overall energy consumption. As a part of the American Recovery and Reinvestment Act signed into law, Energy Efficiency Community Block Grant Funding is available for municipal use. The Village has applied for funding on projects that include:

- Replacement of two boilers for VH & PD – 92% efficiency;
- Solar Light Tubes which require no electricity for DPW garage;
- LED lights for outdoor lighting of Village facilities.

### *Collection Services Efficiency Enhancement Initiative*

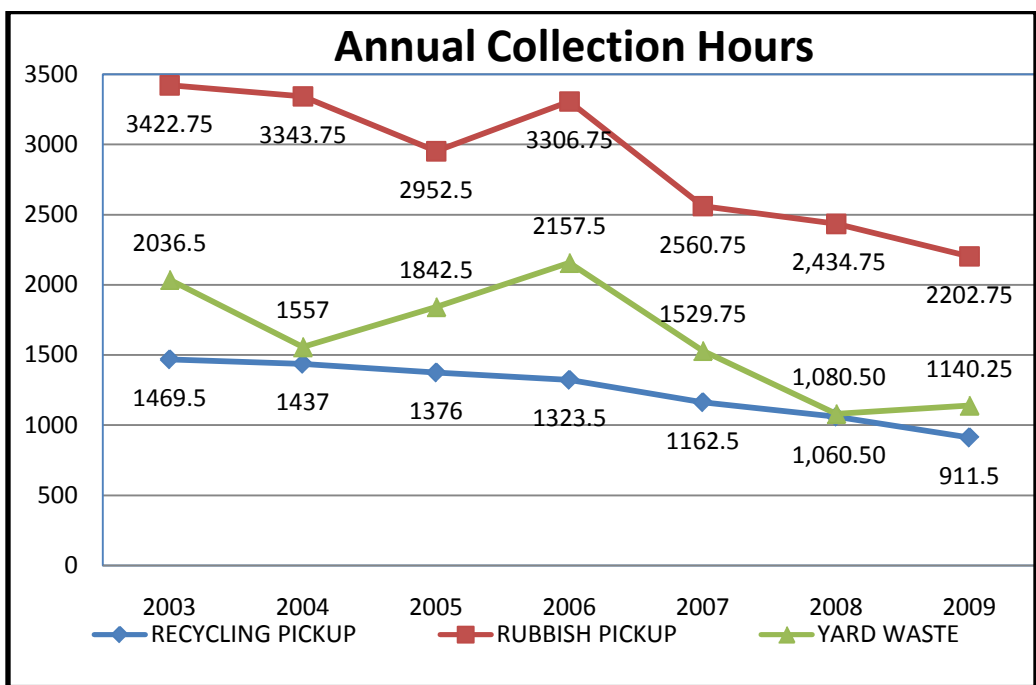
Another component of the Village’s efforts to deliver quality services in a cost-effective manner was the implementation of a comprehensive collection efficiency measurement initiative. Part of this program benchmarked the number of hours the Village’s Department of Public Works (now Department of Community & Utility Services (DCUS)) spent annually on collection-oriented services (garbage, recycling and yard waste). The initial results showed that DCUS spent a large portion of its time on collections. As a result, crews had little time left over to spend on infrastructure maintenance on Village-owned vehicles, machinery and roadways.

The Village revised, reprioritized and placed new emphasis on the work allocation of the Department and its operations. It took a major effort to refocus the staff on the new collections efficiency model, then communicate that refocused effort to residents on how to comply with the changes and actually get their garbage, recyclables and yard waste out on the appropriate days.

In making these service adjustments, the Village modified collections schedules and switched to a more demand-based service, based on the results of the performance measurement system. The DCUS initiative also included setting collections benchmarks for DCUS workers to ensure a consistently high level of effort. All of this was done successfully, while maintaining the same level of service to the residents. The revised collections involved:

- Analyzing volume and tonnage by month and season and scheduling accordingly;
  1. Consolidating collection days from three to two;
  2. Reducing the number of labor shifts from 10 to 5 on garbage and recycling collections;
  3. Implementing several operational changes, which reduced the amount of time spent collecting these materials by 2,745.5 hours, reducing additional vehicle emissions by that same amount of hours.

- Instituting single-stream recycling;
  1. Developing benchmarking standards for each employee, route, and collection function;
  2. With enhanced communications and educational efforts, recycling tonnage increased 100 tons from the implementation of single-stream recycling in April through December 2008, versus all of 2007.
- Developing strategic collection schedules and standards for yard waste;
  1. Collected 520 tons of yard waste. Instead of taking materials to the landfill, yard waste was stored at the DCUS facility and eventually was tub ground. This created a high-quality mulch/compost material, which was then used on Village lands and made available for free to residents.
  2. Offered special Christmas tree collection and created mulch, providing additional mulch for residents.
  3. Collected 471 tons of loose leaves in the fall, and then transported them to a nearby farm for application and soil enhancement purposes.
- Monitoring standards and performance measurement on a consistent basis.



	Labor hours	Savings
Reduced collections hours	2,745.5	\$96,670

The shift in resources and manpower resulted in a reduction in hours spent on collections of approximately 30 percent and a savings of almost \$97,000. Due to that time savings, DCUS workers are able to spend more time doing preventive maintenance work, including infrastructure maintenance work such as road shouldering, stormwater ditching, asphalt repairs, sanitary sewer maintenance, building and equipment maintenance, etc. Those efforts serve to prolong the life spans of village roads, tools and heavy equipment, which saves taxpayers money and frees up budgetary resources to be spent on other projects.

Non-financial benefits include better-maintained infrastructure and a collections service that is driven by residents' demand. Residents who need large items collected can request a special pickup and expect that it will be handled shortly after they've filled out their request. Repairing existing equipment and infrastructure will extend its period of

usefulness and allow taxpayers and the Village to more effectively use fiscal resources during these difficult economic times for capital infrastructure, equipment and other operational needs.

### *Other Community, Infrastructure, Regulatory, & Communication Initiatives (2009)*

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- First time Tree City USA.
- Held Spring clean up days, a four day event to bring community together to clean yards, ditches, streets, collect yard waste, recycle materials, computer and electronic recycling program to reduce landfill impacts. Over 350 computers and electronic equipment were recycled in the four day event.
- Formed environmentally focused Greenscape Bayside Committee, whose mission is to “to educate and encourage a sustainable relationship with the environment while promoting an aesthetically pleasing community”.
- Members of the Committee and community also participated in an eight week Sustainable Living class.
- Become model community for Milwaukee Metropolitan Sewerage District rain barrel program.
- Installed pet waste collection stations in Municipal Park.
- Implemented ink jet cartridge and cell phone recycling programs at Village Hall.
- Established sediment filtering drainage area with natural plantings at Lake Drive & Brown Deer Road. Planted water absorbing plants to absorb additional stormwater.
- Established tree planting program.
- Established tree farm for future tree planting.
- Sell old street name signs to interested parties instead of disposing of them.
- Enhanced environmental corridor collection site, now providing residents the opportunity to recycle used oil and dispose of yard waste in addition to single stream recycling drop off site.
- Implemented a comprehensive set of stormwater management ordinances to regulate the management of storm water. Specifically, developed an -impervious surface ordinance which required the review of proposed additional impervious surfaces in the Village.
- Fats, Oils, and Grease (FOG) sanitary sewer ordinance was adopted.
- Received DNR grant for comprehensive review of Village stormwater management plan.
- Establish e-notify, an electronic mail notification system, to keep residents informed of Village activities. To date, the Village has over 650 participants.
- Distribute Bayside Buzz via email weekly as way to keep community up-to-date in lieu of printing publications and mailing/sending deliveries to 1,625 homes.
- Include in newsletters, Bayside Buzz, and other communication venues information on environmental initiatives, best practices, reminders, and events.
- Transition quarterly newsletter paper to recycled paper.
- Purchase recycled office supplies when possible.
- Transitioned to new cleaning supply vendor, reducing number of cleaning agents used in Village operations and enhancing environmental friendliness of cleaning supplies.

## Why Measure?

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### **Who has benefited from the program; Is it in line with ICMA Core Beliefs?**

The Village's efforts have proven to be extremely important in building community, as well as providing a feasible cost-benefit. The program is defined by ethical behavior, and was integrated with professional management. Benefactors include:

- Environment
- Village residents
- Village facilities
- Village staff

### **How was the program initiated and implemented?**

Initially, the Village Board adopted "Environmentally Responsible" as one of five long-term strategic initiatives. Future steps included departmental research to reduce spending, implement new energy efficient technology, and consistent and persistent performance measurement to achieve organizational efficiency and excellence.

### **What risks were associated with planning and developing?**

Overall risk was minimal. Some challenges include:

1. Employee buy-in
2. Communicating new events with the public
3. Initial investment costs
4. Technology management – finding the right equipment and making it work for our situation
5. Estimating total payback period

### **What were the execution costs and savings?**

Total costs are difficult to quantify, as many of the changes have led to "soft" internal cost savings with the reallocation of labor. Some of the costs associated with energy efficient installations include:

<u>Expenditures</u>		<u>Savings</u>		
1.	HVAC System Rehab	\$48,500	1. Personnel costs	\$97,000
2.	Motion Sensor Lighting	\$10,000	2. Electricity/Gas Reduction	\$21,000
3.	Thermostat Reconfiguration	\$1,500	3. Yard Waste Recycle Program	\$23,400
4.	Building Insulation	\$500	4. Leaf disposal	\$19,000
			5. Road Salt Reduction	\$9,000
			6. Fuel Usage	\$3,000

### **What lessons were learned that could be shared – implementation value for other units of government?**

- Measurement and accountability can lead to significant enhancements without any loss in service.
- Several small changes can make a very large impact.
- While the implementation and effect may not occur quickly, patience and resolve can lead to a positive outcome.
- This type of change is beneficial not only fiscally and environmentally, but also as a public relations tool.
- In our case, the municipality has taken the lead to exemplify the benefits of efficiency.

### **Additional Components?**

This type of change truly comes as an organization-wide effort and leadership at all levels. The layout of the Village, coupled with the style of organization, required that each department and each staff member all cooperate for the overall benefit of the community and the organization. In addition, the community has strongly responded, with residents helping to implement new and innovate ways to contribute to the Village's sustainability effort.