RECONNECTING FORT WAYNE VISIONS OF SUSTAINABLE GREEN INFRASTRUCTURE

Prepared for City of Fort Wayne, Indiana

By Bill Eyring, P.E. and Steve Wise Center for Neighborhood Technology



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About the Center for Neighborhood Technology

CNT is an independent non-profit organization that promotes livable and sustainable urban communities. CNT was founded in 1977 under the auspices of the Center for Urban Affairs and Policy Research at Northwestern University and independently incorporated to research, adapt and test new community revitalization strategies. Since the organization's inception, it has taken a holistic, solution-oriented approach that reflects a commitment to both existing communities and nature. CNT combines rigorous research with effective action to achieve substantial improvements in public policy, urban programs and private markets. CNT has a growing consulting practice working with municipalities on issues of sustainable development. CNT practices sustainable development "at home" in its platinum LEED certified building.

While CNT's focus is on the Chicago metropolitan region, it works with partners across the country in its primary focus areas: climate, energy, natural resources, and transportation and community development. Within each of these areas, CNT uses a number of strategies: policy research, advocacy, education and economic development demonstration projects. CNT has developed a library of sustainability tools that can assist community organizations and government agencies in planning and decision-making.

Our Natural Resources Program focuses on demonstrating and capturing the multiple economic and social benefits of green infrastructure, utilizing natural systems to restore the value of rainwater from a waste to a resource in Chicago and elsewhere. CNT developed the Green ValuesSM Stormwater Tool Box and Calculator (http://greenvalues.cnt.org) to analyze the costs and benefits of using green infrastructure to mitigate the need for conventional stormwater infrastructure, such as sewers and detention basins. We are conducting performance monitoring studies of several green infrastructure installations to confirm they work as well in Chicago's climate and soils as elsewhere, and working with communities to adopt policies that make green infrastructure the preferred option for stormwater management. CNT is also developing the Great Lakes Cities Permeability Index, a planning tool to monitor and evaluate the effectiveness of permeable surfaces to divert stormwater from treatment facilities. The cities of Chicago, IL, Milwaukee, WI, Fort Wavne, IN, Evanston, IL, and the Milwaukee Metropolitan Sewerage District are the initial partners for this project, funded by the Great Lakes Protection Fund.

More information at www.cnt.org/natural-resources

Executive Summary

The City of Fort Wayne has chosen to use several simultaneous challenges related to its water resources as an opportunity to explore sustainable solutions. The Center for Neighborhood Technology (CNT) was retained to seek hidden assets in the urban neighborhoods and identify ways in which water resource investments can achieve multiple benefits.

Four Challenges Facing Fort Wayne:

- **Demonstration Rain Gardens:** The City has negotiated Supplemental Environmental Projects (SEPs) with the United States Environmental Protection Agency and the Indiana Department of Environmental Management to partially offset the impacts of combined sewer outfalls to local rivers. The first project calls for the creation of twelve demonstration rain gardens and the stimulation of 1,000 raingardens in the neighborhoods.
- **Replacement of Septic Systems:** The other SEP requirement is the replacement of 175 poorlyoperating septic systems.
- Long Term Water Supply: A long-range challenge is planning for increased sustainability of the City's water supply, which is dependent on a comparatively clean and steady flow of water in the St. Joseph River.
- **Preservation of Agricultural Land:** And, the stated goal in the document Plan-It Allen of discouraging spread of low density development into agricultural land would lead to less expensive water and sewer services. Potentially, the way sewage is managed can contribute to achievement of this goal.

Rain Gardens

CNT recommends a two track process to establish Fort Wayne's rain garden program: one for larger, engineered rain gardens on public sites, and a second to proliferate smaller, inexpensive, communitybased rain gardens at residences. The City is well along in retaining an experienced consulting firm to manage the demonstration projects. Progress is slower, however, in developing a process that will result in large numbers of rain gardens. CNT recommends that the City work with neighborhood and watershed organizations to accelerate the community side of the initiative. Other cities have valuable experience with similar programs.

CNT and watershed activists identified two areas in Fort Wayne as potential focuses for initial rain garden programs. One is a residential street where street flooding could probably be reduced by rain gardens strategically placed on private lands. If local homeowners, or other property owners, become interested, demonstration of rain gardens and their uses could proceed quickly. The other area is along North Anthony Road, a major commercial artery that has been the subject of community planning and study. While the overall plan is complicated, private rain garden initiatives along the street could begin to demonstrate the value of public-private cooperation to improve business conditions with attractive natural features that also improve stormwater management.

Septic System Replacement, Long Term Water Supply, and Preservation of Agricultural Land

Areas requiring septic system replacement are well-distributed around the fringes of Fort Wayne. But there are a number of issues in an area north of the City that spurred CNT to select it to illustrate how one project could potentially solve several problems. The area contains as many as 100 septic systems of concern, including 50 systems that need to be replaced soon. It also contains a golf course that currently waters its fairways and greens with groundwater. The area lies in the watershed of a reservoir containing the Fort Wayne drinking water supply. Fort Wayne already serves 27 families with a small, but troublesome, sewage treatment system. Furthermore, the area is growing with the kind of small developments that are expensive to supply with urban services and displace prime agricultural uses.

CNT suggests that the City consider planning for a wastewater reclamation and reuse system that could handle sewage from all of the existing septics, could irrigate the golf course with the treated water, and could be designed to discourage development north of the Allen County line. Thus, polluted water entering the water supply and water lost to the golf course could be replaced by clean water that is purified by the soils of the golf course. There are approximately a dozen of these systems in the Chicago region, and western states have a large number of them.

An Action Plan for Fort Wayne Water Sustainability

CNT recommends that the City of Fort Wayne adopt an Action Plan for Water Sustainability as soon as possible. Short range action steps in the Action Plan should include:

- Designate a committed champion within the City staff;
- Convene a Summit of public and private enthusiasts;
- Select a passionate watershed activist to co-chair, with the staff champion, a task force focused on water sustainability in the Fort Wayne region;
- Establish measurable goals and performance standards for rain garden and other water sustainability programs;
- Immediately begin working with community representatives to build demonstration rain gardens along Parnell Road or similar areas. Work with experienced leaders and sources of native plants. Make each of the rain gardens inexpensive and able to be constructed in a day by the property owner and neighborhood volunteers;
- Attempt to work with businesses along North Anthony Boulevard to begin visible improvements to their property. Use their site as the location of one or more of the larger demonstration rain gardens sponsored by the City;
- Continue to seek opportunities for making septic system replacement another effort leading to dramatic local improvements and long-term sustainability;
- Enjoy the work. Celebrate all progress. And plan for dramatic success in 2009.

Introduction

The City of Fort Wayne has arrived at pivotal moment for the management of its water resources. Fort Wayne still has a large area at its center that is served by combined sewers, and is obligated to make major investments to reduce its load of pollution to the local river and, downstream, Lake Erie. Neighborhoods are sometimes plagued by wet basements, yards and streets. And the City is dependent on the river for its water supply, a source that could deteriorate in the distant future.

Fort Wayne officials have accepted these challenges and chosen to see their combination as an opportunity to seek synergy in the solutions. They retained the Center for Neighborhood Technology to seek hidden assets in the urban neighborhoods and identify ways in which water resource investments can achieve multiple benefits. The following discussions demonstrate the practicality of this approach, and the breadth of benefits that can be attained. They also represent the participation of City staff and watershed actors in an all-day workshop at Fort Wayne on June 30th. At to the workshop, the contents of a draft of this report were distributed as a basis for some of the discussion.

A special guest at the workshop was Kevin Shafer, the Executive Director of the Metropolitan Milwaukee Sanitary District (MMSD), who is an advocate for the creative use of rain gardens and other "green infrastructure." Mr. Shafer provided a great deal of information that will be important as Fort Wayne moves ahead.

Building a Rain Garden Movement

Fort Wayne has negotiated Consent Decrees with both Federal and Indiana agencies for meeting requirements to reduce combined sewer overflows (CSOs) to its rivers. The settlement included Supplemental Environmental Projects (SEPs) that define clear objectives related to rain gardens.

Fort Wayne faces several major challenges in meeting the requirements of the SEP from the State of Indiana. The State SEP requires the installation of 20 demonstration rain gardens at a cost of \$240,000, development of an education module for \$50,000, development and printing of a "how to" manual for \$30,000, and, using an incentive of \$100 each, facilitation of 1,000 rain gardens by 2014.

One approach to meet this mandate is to develop standards for designing and installing rain gardens with a process for program participation that requires oversight of a large organization. This approach may be applicable for industrial or commercial properties where the volumes of stormwater to be managed are high, toxicity concerns from previous land uses may require special treatment, or construction cost and effort would be substantial. Construction of demonstration rain gardens or bioswales on these properties could cost in the range of \$12,000 each, which is equivalent to the amount allocated in the SEP.

A variation of this approach is allocation of some of the demonstration gardens to measures in public rightsof-way, such as curbside gardens known as "pocket swales" or "bumpouts" in parking lanes of streets. A recent Water and Environment Federation sustainability conference included a presentation that established desired green infrastructure capacity allotting plantings between arterials (using areas off street rights-ofway) and smaller residential streets (using bump outs that can slow traffic).

However, a second approach can apply to residential properties where the scale of most rain gardens would be similar to that commonly employed for the annual gardening done by the homeowner and family. This is the scale likely to be used for 90% or more of the rain gardens constructed during the project. There are programs of this type that are successful and provide important guidance for Fort Wayne.

The City of Rock Island, IL has used a model for achieving participation at this scale since 2003. A total of 129 rain gardens have been constructed by property owners during this 4-year period, and 20 gardens will be planted during 2008. The source of funding is limited to amounts available from fees collected for stormwater improvement projects.

How to Participate in the Rain Gardens for Rock Island Program

Part 1

- Carefully review the application material in this packet.
- Complete the application with a sketch of the proposed rain garden.
- The City will review the application and meet with you to discuss your proposed garden. If you are able to incorporate the use of a rain barrel into your design, the City will supply one free of charge. (Rain barrels are not suggested by CNT.)
- The City will send you an approval to begin building your garden.
- Approved rain gardens for applications received from 8/2 through 4/1 must be completed and scheduled for inspection by 7/1. Rain gardens approved for applications received from 4/2 through 8/1 must be completed and scheduled for inspection by 11/1.

Part 2

- Build the rain garden that was approved by the City.
- Contact the Public Works Department at 732-2200 if you have any questions about your garden.

Part 3

- Notify the Public Works Department at 732-2200 that you have completed your garden and are ready for an inspection.
- A member of the Public Works Department will meet with you to inspect your completed garden.
- The City will pay you \$4.00 per square foot of approved rain garden.

More information about this "Rain Gardens for Rock Island" program at http://www2.rigov.org/pdf/publicworks/raingardensforrockisland.pdf. A 12-page manual describes the process to participate in the program.

This program has been staffed by a single individual, who also is responsible for operating the City's marina and other duties. She is enthusiastic about the program and notes that it's limitation is the available funding, not public interest in participating.

The Fort Wayne program will have to be more ambitious, but still could be administered with limited investment. If City staff isn't available, the funding of one or more not-for-profit organizations with training by experienced gardeners could facilitate construction of the residential gardens. The reimbursement in Fort Wayne will be less than in Rock Island, but other programs have shown that people are willing to make modest investments in rain gardens. The project in Ohio's Shepherd's Creek found many homeowners willing to install green infrastructure without subsidy (see http://www.mtairyraincatchers.org/index.htm) The much more limited participation by Fort Wayne commercial or industrial property owners can be administered using consultants as needed.

The Milwaukee Metropolitan Sewerage District (MMSD) has a program that provides for a 50% match for the purchase of plants for approved rain gardens. At the June 30th Fort Wayne Workshop, MMSD Executive Director Kevin Shafer reported enthusiastic public acceptance of the rain garden program, as well as steady sales of rain barrels at prices of \$30 to \$40.

CNT recommends that Fort Wayne modify its planned rain garden program to utilize two contractors. One contractor could work with industrial and commercial land owners to encourage rain gardens at a relatively large scale and higher engineering intensity.

The second contractor could be a local organization, or partnership of organizations, that would work on the residential rain gardens. Tasks would include working with the City and neighborhoods to develop a simple, effective process to bring property owners into the program, enable them to construct a rain garden meeting minimal requirements, track the locations and characteristics of the completed gardens, and reimburse them up to the limit defined by the City. Proposals could include ways to provide training and jobs for youth. A wide variety of configurations for rain gardens on private lands results from the varying site conditions. The photograph on the cover of this report reflects water from a roof or other pervious area being directed toward the street where it can infiltrate into the soil or, following very heavy storms, can be carried in a swale to an outlet.

Figures 1, 2 and 3 on the following pages show rain gardens that have been initiated by CNT, each designed to solve a very localized problem. The City of Fort Wayne is a participant in a proposal to fund a "Permeability Index" project with the Center for Neighborhood Technology, the Cities of Chicago and Milwaukee, and the Credit Valley Conservation Authority in Ontario, Canada. This project, which could begin later in 2008, would be an opportunity to explore a variety of other activities to accelerate green infrastructure implementation, including on-line registration of green infrastructure measures, that will support Fort Wayne's requirements.



Figure 1. Rain Garden at the Brookfield Zoo

A rain garden that was installed at the Brookfield Zoo in Brookfield, Illinois. The runoff from the roof of the Reptile House, which had been flooding a well-used sidewalk, now is stored and infiltrated in the 10 by 12-foot garden.

Figure 2. A Private Rain Garden Protects the Below-Grade Garage

A 5 by 6-foot rain garden in a Skokie, Illinois front yard. Water from the home roof, which had frequently flooded the below-grade garage, is now stored and infiltrated. Both the zoo garden and the residential garden were constructed in one day by volunteers with plants costing approximately \$3 per square foot.





Figure 3. Rain Garden at the St. Charles Park District

A 15 by 20-foot rain garden at the St. Charles Park District in Kane County, Illinois. This area receives runoff from a parking lot and building where trucks are stored and where the water enters the Fox River. The Park District considered hiring a consultant to design the rain garden, but CNT and a local NRCS staff member suggested that District staff and volunteers use readily-available materials and build the garden themselves. It was constructed in a few days using plants that the District had grown for use in natural area restoration, so that the out-of-pocket costs were zero.

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The Potential for Strategic Implementation of Rain Gardens in Fort Wayne

The June 30th Workshop considered three neighborhood areas to stimulate discussion of rain gardens for Fort Wayne. CNT had identified three areas as holding potential for substantial benefits from the use of rain gardens and other green infrastructure within a short time frame. The locations of these three potential initiative areas are shown in Figure 4.

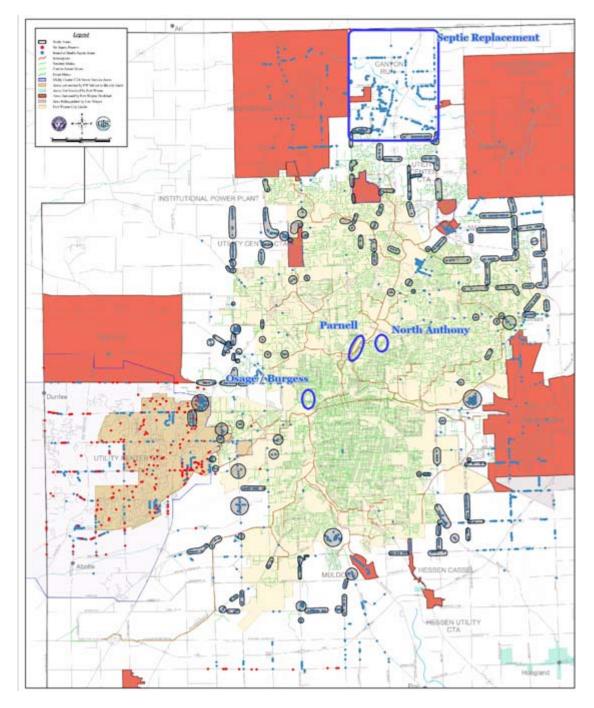
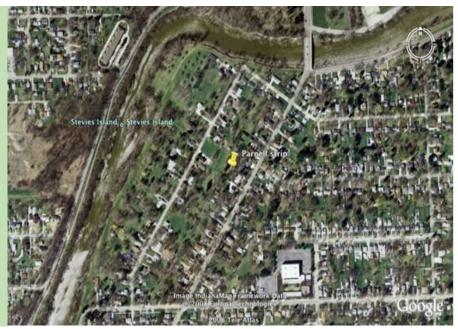


Figure 4. Potential Initiative Areas

Figure 5. Parnell Avenue

Parnell Avenue. from approximately Vance Avenue to Somerset Lane, is located between two planned sewer separation projects, but is an area subject to flooding streets. Property owners may be interested in participating in a demonstration project rain gardens to use small-scale or other strategies to reduce the flooding. The map to the right shows the area.



Discussion revealed that the City sees this as a priority area for improvements, but complexities include:

- The street is a bus route so that narrowing of the pavement or use of the right-of-way for stormwater features is not practical,
- The curb and gutter need to be replaced,
- There is no usable sidewalk and large trees block the construction of new sidewalks.

These complications have stalled the planning of improvements. The flooding is severe enough that small measures are not likely to improve conditions significantly. The apparent intractability of solutions within the City right-of-way, combined with a strong local organization, cooperating neighbors, and City incentives for constructing rain gardens may, in fact, constitute an opportunity. If a number of property owners constructed rain gardens, they could reduce stormwater runoff from their properties to the street. CNT recommends that Fort Wayne consider this area as a prime location for demonstration residential rain gardens. Some of them could be constructed during the next few months.

Figure 6. North Anthony Boulevard

Businesses along a 6-lane stretch of Anthony Blvd. between Crescent Avenue and St. Joe River Drive have proposed a project that could incorporate rain gardens. Anthony is only four lanes at either end of this 1/4-mile stretch and the local business community supports narrowing the six-land portion to make it more attractive and walkable. Businesses have envisioned a greenway for pedestrians and bioswales to manage stormwater along the narrower street.



RECONNECTING FORT WAYNE

Green Infrastructure

This proposed change holds many potential benefits that could be models for other parts of the city, including stormwater runoff reduction, improved pedestrian access, and improved attractiveness. CNT analyzed the potential stormwater management benefits with the Green Values[™] Stormwater Calculator (http://greenvalues.cnt.org) was used. The results of the assessment can be highlighted as follows:

- If the street is to be substantially rebuilt, reducing the pavement width from 60 feet to 40 feet and using swales instead of curbs, gutters and sewer pipes could save the City roughly \$350,000 in construction costs. The volume of stormwater runoff could be reduced by about 5%, as well.
- If participation by property owners could be gained, perhaps with City support, a collective investment of \$184,000 in construction costs could yield a reduction of 29% in stormwater runoff.

It remains questionable whether this project can proceed quickly. However, CNT recommends that the city approach property owners about cooperative approaches among neighbors that could serve as effective rain garden demonstrations (and thus appropriate for City financial participation) and could yield very attractive magnets for customers and general public good will.

Figure 7. Osage and Burgess Streets

The intersection of these two streets has a history of intense flooding, even to the point that flooding sewers can lift a manhole cover. Although it is likely that the solution to such a problem is both complex and very expensive, this site can potentially serve as an example where reducing runoff that is currently contributed from industrial properties may be an important component of the solution. The map on the right shows the intersection and surrounding land uses.



Workshop participants generally agreed, however, that the barriers to a successful short-term solution were prohibitive. The severity of the problem is not likely to respond to small-scale approaches. Also, railroads who may be resistant to non-rail uses own adjacent lands that could potentially be used to store stormwater. Workshop participants did not recommend pursuing this project.

Septic System Replacement as an Opportunity for Multiple Benefits

Fort Wayne, together with New Haven, is bordered by generally open farmland with scattered residential pockets. Plan-it Allen recommends policies that result in growth adjacent to existing communities as well as preservation of farmland and important natural landscapes. But there appear to be few barriers to continued new development patterns that extend into nearby farms.

The urban fringes are generally served by septic systems that handle sewage from a single family. Approximately 1,600 of these systems have been identified as poorly operating, with the eventual need for their replacement. The Federal SEP requires the elimination of 133 septic systems at an estimated cost of \$1,899,000. The State SEP requires the elimination of 42 septic systems at an estimated cost of \$599,000.

No particular area has been designated as having the highest priority for these improvements. Fort Wayne will assume most of the burden for serving these areas over time with wastewater management. Many of the septic systems of concern are within the City limits and are adjacent to areas having sewer service. They will probably be the systems targeted for replacement. But there may be reasons to extend the replacement program to other priority areas.

CNT has sought to identify a potential project where the required replacement of septic systems is planned in a strategic way that demonstrates how actions to solve one problem can yield multiple benefits. One of the objectives of the CNT work is to point out opportunities for increasing the long-term sustainability of the City's water supply. This could be done if septic systems that currently pollute the St. Joseph River, source of the Fort Wayne supply, are replaced by a system that enhances the supply.

Figure 8. Septic Replacement Area

CNT identified an area where such an initiative may be practical during a visit to Fort Wayne and through subsequent contacts with stakeholders. (See "Septic Replacement" on Figure 4.) The area is in Perry and Cedar Creek Townships and is roughly bordered by North County Line Road on the north, Route 327 on the west, Union Chapel Road on the south, and extended Viberg and Puff Roads on the east. This area contains the sewage treatment system at Deer Track Golf Course that was purchased by the City of Fort Wayne, the sewage treatment system near Deer Track Golf Course currently owned by the City of Fort Wayne, and also up to an estimated 500 septic systems that have been identified as poorly operating. The capacity of a system to handle the wastes from 500 systems would be on the order of 200,000 gallons per day.



Commonwealth Engineering, Inc. is working on two projects for the Allen County Regional Water and Sewer District – one at Cedar Canyon and the other at Cedar Shores. Each of these subdivisions has approximately 50 families with non-functional septic systems. Commonwealth is evaluating the option that they each subdivision be served by small diameter force mains and a package treatment plant.

This concentration of difficult circumstances may be an important hidden opportunity.

Wastewater reclamation and reuse is not often practiced in the Midwest. There are, however, approximately a dozen examples in the Chicago region of small to medium-sized systems that recycle treated wastewater

to golf courses or other lands, resulting in zero discharge of wastewater to surface water bodies. One of the companies that designs, and sometimes operates, these wastewater reclamation and reuse systems is Sheaffer & Roland, Inc. of Geneva, IL. The company's website, www.sheafferandroland.com, discusses some of these projects.

A second Illinois company, Sheaffer International, L.L.C. (www.sheafferinternational.com) is located in Glen Ellyn and designs comparable wastewater management systems. There are also many examples of wastewater reclamation and reuse in California and other states where water supply can't be taken for granted. The WateReuse Association (www.watereuse.org) provides information about some of these systems.

The oldest of the Sheaffer & Roland systems, is at Hamilton Lakes, in Itasca, IL. This system, with a capacity of 254,000 gallons per day, has been operating for 28 years in a 320-acre office park containing a very high-end Westin hotel and some of the largest office buildings in the Chicago suburbs. Most of the other water reuse systems in the Chicago region are built at golf courses where the treated water is used to irrigate the fairways. All of these systems, as well as two systems planned for Indiana but not built, have been permitted by state EPAs as zero-discharge systems where no wastewater directly enters any stream or surface water.



Figure 9. Deer Track Golf Course

If a wastewater reclamation and reuse system were to be constructed adjacent to the Deer Track Golf Course, the treated wastewater that is irrigated on the golf course would replace that currently withdrawn from wells. Since the system would be designed to irrigate more water than is currently used at the course, without impeding any golf activities, the groundwater flow to the St. Joseph River would increase significantly. This would be a step in providing for long-term stability of the Fort Wayne water supply, since the local groundwater provides base flow for two reservoirs serving the City.

Figure 10. Hawthorn Woods Country Club and Water Reclamation Plant

The treatment and storage lagoons at Hawthorn Woods Country Club in Mundelein, Illinois, serve 750 families. The scales of the aerial photographs for the two golf courses are approximately equal, as can be seen by the ¼-mile yellow line on each. The treatment and storage lagoons are shown near the center bottom of Figure 9. The somewhat smaller lagoons needed for a Fort Wayne system could be constructed using land adjacent to the Deer Track Golf Course.



RECONNECTING FORT WAYNE

Green Infrastructure

An Action Plan for Fort Wayne Water Sustainability

At the conclusion of the June 30th Workshop, participants focused on each of the four potential initiative areas, in turn, to propose answers to the following questions:

- 1. What actions will be necessary by public agencies and community representatives to implement sustainable solutions to problems which are represented by this site?
- 2. What policy or regulatory changes will be required to successfully take these types of actions within a few years?
- 3. What other sites in or around Fort Wayne could be represented by this site?
- 4. What agency or organization would make an effective champion for each of these sites?

Kevin Shafer, the guest speaker and Executive Director of the Milwaukee Metropolitan Sewerage District then offered a summary of the critical factors that need to be included in an action plan for Fort Wayne. He most emphasized the following nine points:

- 1. Fort Wayne needs an effective champion for its campaign for water sustainability.
- Fort Wayne needs an effective method of communication about the campaign Milwaukee encourages citizens, for example, to keep in touch with a real-time accounting of the amount of water in its stormwater tunnel system.
- 3. Fort Wayne needs to convene a Summit to launch its campaign.
- 4. The first actions need to be free or low cost rain barrel giveaways, downspout disconnects, etc.
- 5. Demonstrations, demonstrations, demonstrations, especially at public spaces.
- 6. The City needs to partner with neighborhood and watershed groups and environmentally-conscious businesses.
- 7. Cost-sharing between public and private partners is critical. The MMSD provides for design and monitoring while the property owner is responsible for maintenance.
- Fort Wayne needs to be continually seeking creative ways to organize and finance the campaign. The MMSD is considering setting up a tax exempt not-for-profit organization to attract funds tied to community improvements.
- 9. And, most importantly, Fort Wayne needs to dive in and grab early victories.

The dynamics of the Workshop demonstrated that an authoritative champion was not in the room. The Fort Wayne staff in attendance were understandably cautious about planning to meet the regulatory demands that they face. A combination of contracts with consultants, approvals by the City Council, engineering specifications for rain gardens, and a focus on public properties as demonstration sites could delay visible implementation of rain gardens. And visible, attractive, working rain gardens will be necessary to spark a celebration of progress that brings the public into the program.

Yet citizens and organizations that care passionately about watershed issues are eager to play a role in the City's programs. At least a half-dozen participants said they would install rain gardens at their homes as soon as possible. They seemed to feel, however, that they needed some sort of permission to do so.

CNT recommends that the City of Fort Wayne adopt an Action Plan for Water Sustainability as soon as possible. Short range action steps in the Action Plan should include:

- Designate a committed champion within the City staff;
- Convene a Summit of public and private enthusiasts;
- Select a passionate watershed activist to co-chair, with the champion, a task force focused on water sustainability in the Fort Wayne region;
- Establish measurable goals and performance standards for rain garden and other water sustainability programs;
- Immediately begin working with community representatives to build demonstration rain gardens along Parnell Road or similar areas. Work with experienced leaders and sources of native plants. Make each of the rain gardens inexpensive and able to be constructed in a day by the property

owner and neighborhood volunteers;

- Attempt to work with businesses along North Anthony Boulevard to begin visible improvements to their property. Use their site as the location of one or more of the larger demonstration rain gardens sponsored by the City;
- Continue to seek opportunities for making septic system replacement another effort leading to dramatic local improvements and long-term sustainability;
- Enjoy the work. Celebrate any progress. And plan for dramatic success in 2009.