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### **Introduction**

This chapter is an addendum to *Chapter VII: Transportation* in the *2005 Comprehensive Plan for the Town of Baileys Harbor*. It is intended to supplement the original plan by providing additional information compiled as a result of the 2010 Community Land Use Survey, Kick-off Meeting, and Cognitive Mapping Forum. It also offers implementation strategies that may not have been included in the 2005 document.

A diversified, well-balanced transportation system is a major factor affecting growth and quality of life. The transportation system exists to move people, goods, and services both through and within the community. Planning for the various modes of transportation is one of the most important components of the Comprehensive Plan for the Town of Baileys Harbor.

### **Transportation Systems and Opportunities**

#### **PEDESTRIAN AND BICYCLE TRAILS**

Areas for safe walking and bicycling in Baileys Harbor are limited to sidewalks and streets within the Town Center and lightly traveled country roads. Sidewalks within the Town Center provide safe walking for residents and visitors; however, Town and County roads have limited shoulder areas and posted speed limits of 45 miles per hour or more in most areas. These conditions hinder safe pedestrian travel.

The northern terminus of the Ahnapee State Trail, the nearest trail in the WDNR trail system, is located in the City of Sturgeon Bay. Tentative plans are in place to extend the trail to the northern tip of the Door County Peninsula (see section below and map on following page).

Forty-nine percent of Community Survey respondents believe that the current availability of trails for pedestrians and bicyclists in Baileys Harbor is inadequate or very inadequate. Forty-three percent are dissatisfied or very dissatisfied with the current quality of bicycle and pedestrian trails in the community. Inter-community bike trails, trails connecting the Town of Baileys Harbor with other Door County communities, was identified as a preferred vision by three participants at the Kick-off Meeting.

Potential locations for future pedestrian and bicycle trails are discussed in *Chapter 3: Land Use* and presented on the Future Land Use Map.

#### **[WDNR State Recreational Trail Network Plan<sup>1</sup>](#)**

The *State Recreational Trail Network Plan* (see following page) was drafted by WDNR and approved by the Wisconsin Natural Resources Board. The plan provides a long-term vision for establishing a comprehensive trail network through Wisconsin. It identifies existing and proposed trails and connections that would serve as the main corridors for a statewide trail

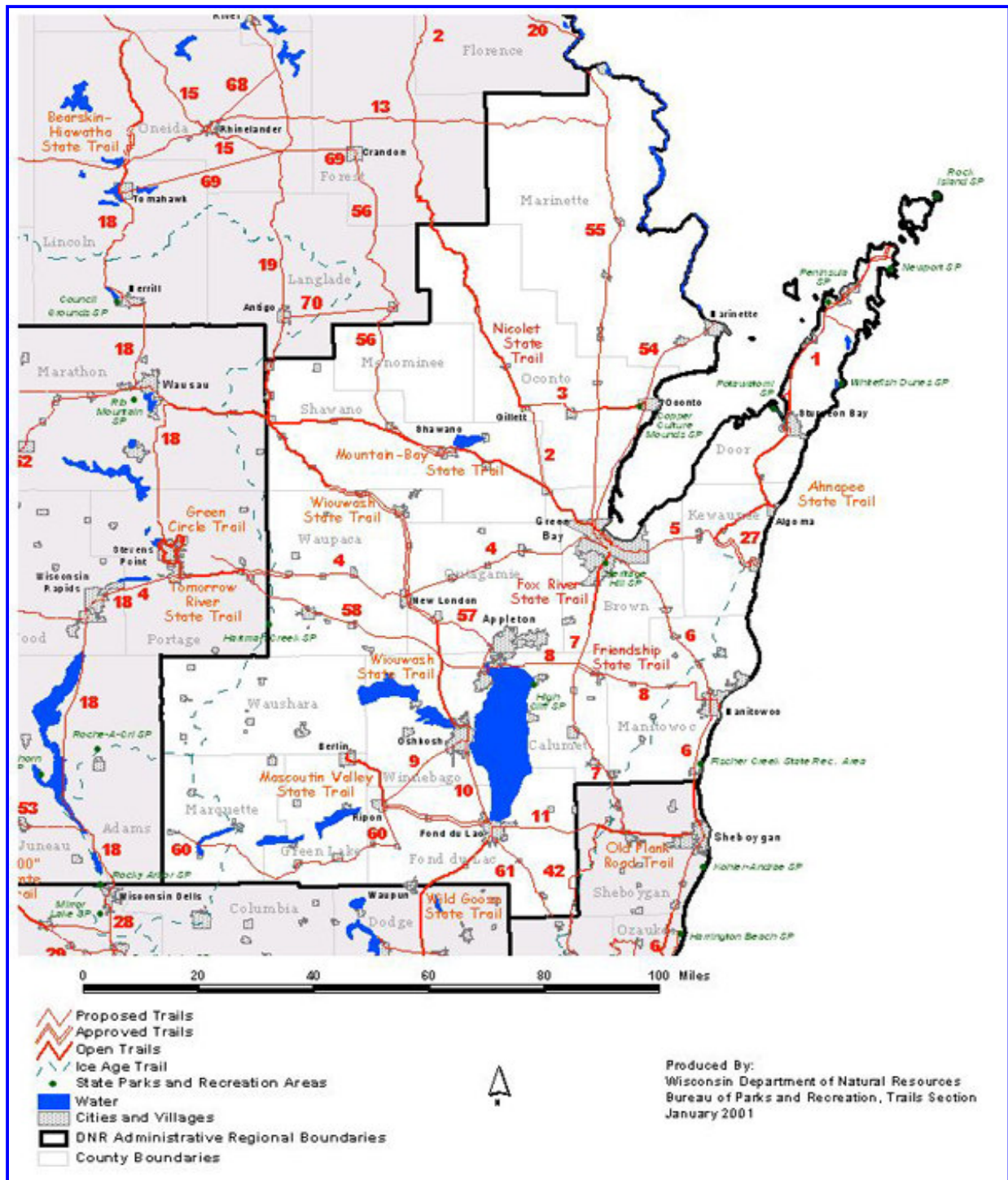
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<sup>1</sup> Source: Excerpted from *WDNR State Recreational Trail Network Plan* website, 2005.

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Source: *State Recreational Trails Network Plan*, Wisconsin Department of Natural Resources, 2005.

system. The plan does not include every trail in Wisconsin, just the major arteries. It focuses mainly on abandoned rail corridors, utility corridors, critical road connections, and natural feature corridors that link places where people live and play, natural areas, public lands, and other destination nodes.

The *State Recreational Trail Network Plan* recognizes that trails developed by local units of governments serve as critical links. Under the plan, WDNR staff will continue to work with local governments and encourage them to connect trails to the network as they update local plans. There are currently no trails in Sevastopol on the *State Recreation Trail Network Map*. However, #1 shows a suggested extension of the Ahnapee trail from Sturgeon Bay to the far northern reaches of Door County. It is important to note that the construction of this trail will become more difficult as time passes and more of northern Door County is developed.

Bicycling is assuming a much more significant role in the transportation system and may provide significant economic benefits to local government. A 2010 study conducted by the CHANGE program at the Nelson Institute for Environmental Studies at UW-Madison found that bicycling contributes \$1.5 billion to Wisconsin's economy every year.<sup>2</sup> Door County's landscape and reputation as a tourist destination provide innumerable opportunities for bicycle-based tourism and economic development.

### Walkable Communities<sup>3</sup>

Walkable communities provide commercial and residential development strategies to enhance opportunities for multi-modal transportation. Local ordinances can be drafted to include requirements that trails be incorporated into future residential subdivision projects. The following recommendations are aimed at improving walkability within the Town:

- Providing linkages (including walkways, trails, and roadways) between neighborhoods and to destination nodes. People need to have choices for traveling. Offering well-maintained roads, walkways, and trails provides improved access for residents. To accomplish this, Baileys Harbor can coordinate with Door County to establish designated bicycle routes on Town and County roads. This can be accomplished by adding a bicycle lane (paved shoulder) or by marking roads with low traffic counts and good site lines with bicycle route signs. Purchasing easements and paving paths *through* properties is another option when local landowners are in agreement.
- Coordination with WisDOT, Bay Lake Regional Plan Commission, and Door County to establish pedestrian and bicycle paths adjacent to the STH 57 corridor with a connection to the Ahnapee State Trail.
- Enforce low speed streets in the Town Center. To promote a walkable community, motorists must respect speed limits in all areas, but particularly near areas where the public may congregate (i.e. in subdivisions and trail crossings).

<sup>2</sup> Excerpted from Bicycle Federation of Wisconsin website, www.bfw.org, 2010.

<sup>3</sup> Excerpted from information available through Walkable Communities, Inc..

### TRAFFIC CALMING

Traffic calming is a way to design streets, using physical measures, to encourage people to drive more slowly. It creates physical and visual cues that induce drivers to travel at slower speeds. Traffic calming is self-enforcing. The design of the roadway results in the desired effect, without relying on compliance with traffic control devices such as signals and signs, or on enforcement. While elements such as landscaping and lighting do not force a change in driver behavior, they can provide the visual cues that encourage people to drive more slowly.

Traffic calming consists of operational measures such as enhanced police enforcement, speed displays, and a community speed watch program, as well as such physical measures as edgelines, chokers, chicanes, traffic circles, speed humps, and raised crosswalks.<sup>4</sup> It also provides increased economic opportunities since drivers, once slowed down, are more likely to stop and shop than those driving through the community at higher rates of speed.

Many participants at the Cognitive Mapping Forum identified traffic concerns within the community, particularly within and adjacent to the Town Center (please refer to the Composite Attitude Map on page 1-19 in *Chapter 1: Issues & Opportunities*).

### Community Bike Program<sup>5</sup>

Community bike programs covers a wide variety of endeavors (bike library, bicycle sharing, public use bicycles, bike cooperative / collectives, check-out bikes, tool collective or libraries, community bike shop, youth programs, earn-a-bike programs, adult classes in mechanics, commuting, touring, etc, bicycle recycling group, etc.), with a wide variety of structures and without well-defined boundaries between types of programs. No two community bike programs are the same. Here are some tips that might help:

1. Don't try to do too much. Think about sustainability from the beginning. Get a clear mission, define your niche -- initially the narrower the better -- and stick with it. It will be more sustainable, and you will be more productive if you do one thing well, rather than get overwhelmed and bogged down trying to organize something for everybody. Focus on making sure you gather the core space, people, equipment to your focused project happening and thriving.
2. As you perfect your core project you can always add other elements later. With the experience that you will have gained, you will have a better idea of what kinds of programs would most benefit your community.
3. It is very difficult to do as a single person. At the same time, with too large an organizing committee it can be hard to get the focus. Start your project with a small group of committed like-minded people.
4. Remember that your volunteers matter as much as the people you serve or who will use the shop. The volunteers are the backbone of new programs. Program start up takes

<sup>4</sup> Excerpted from *TrafficCalming.org*, 2009.

<sup>5</sup> Source: International Bicycle Fund website, <http://www.ibike.org/encouragement/freebike/starting.htm#Starting>, 2010.

time. It's really important to avoid volunteer burn out. Nurturing volunteers is a topic in itself -- make them feel productive actually helps keep it fun and makes them happy.

5. If and when you create a partnership with another organization, create a structure / relationship where the benefits to your mission at least equal the time and effort the collaboration is going to demand.
6. Address liability / insurance issues and protect the organizers/board.
7. Tap into the experience and knowledge existing project. Lists of these can be access from Community Bike Program Directory and Youth Bike Program Directory.

The provision of community bikes was a suggestion provided during the Visioning Exercise.

### **WATER TRAILS**

Water trails embody the nexus between rivers and trails. They provide recreational boating opportunities along a river, lake, canal or coastline. Most water trails are managed in public-private partnership with the philosophies of environmental stewardship, environmental education, and accessibility for all users.<sup>6</sup>

Water trail development can help achieve goals of economic diversification and improved quality of life in rural communities. Water trails are a rapidly growing element of the marine recreation and tourism industry. Case study community trends indicate paddlers (water trails are most frequently used by canoeists and kayakers) will spend between \$27 and \$63 per day. A destination paddler on a multiple day water trip may spend as much as \$88 per day. Eating and drinking establishments, lodging and camping businesses, retail sales, and recreational service industries will see direct economic impacts from water trail paddlers.<sup>7</sup>

### **INFRASTRUCTURE FOR ELECTRIC VEHICLES**

As the cost of energy rises during the coming years, plug-in hybrid vehicles and full electric vehicles will become increasingly common on roads and highways. Electric plug-in stations are being constructed in cities around the country. Some of these stations are funded by state and local government while others are provided as value-added options at local coffee shops and shopping centers. The Town may consider working with the County to revise existing ordinances that they limit the ability of local businesses to support electric vehicles.

Support for electric vehicle recharging stations was offered during the Visioning Exercise.

### **DEPENDANCY ON AUTOMOBILES**

The majority of residents in Baileys Harbor commute to jobs in nearby employment centers. Fuel costs have been steadily rising for the past decade and will continue to do so in the long-

<sup>6</sup> Excerpted from National Park Service website, <http://www.nps.gov/ncrc/portals/rivers/proj/pg/watertrails.htm>, 2009.

<sup>7</sup> Excerpted from *Case Studies of Water Trail Impacts on Rural Communities*, Lindsay Johnson, University of Oregon, September 2002.

term. This trend may increase the desire for and value of a public-transit system for the region. Existing development patterns result in longer commutes from home to work. While it is unlikely that traffic congestion will become a major issue in community, anticipated population increases during the next twenty years will create additional strains on the road network. For other segments of the population, particularly children and seniors who are unable to drive, safe and convenient mobility makes them reliant upon the availability of friends or family to get to school, parks, shopping, and other destinations. Although these issues exist in most communities, they are more prevalent in rural areas.

### PARK AND RIDE FACILITIES

Park & Ride lots provide communities with an inexpensive means of advocating carpooling and decreasing commuter traffic levels. Located along major ingress and egress routes, these rideshare facilities offer convenient meeting places for residents to carpool to area employment centers. While carpooling does not decrease dependency on the automobile, it does offer a means of reducing economic and environmental costs associated with heavier traffic volumes. According to the Wisconsin Department of Transportation, the nearest park and ride facility to the Town of Baileys Harbor is located off STH 57 near CTH C in the Town of Brussels.

Car pooling was suggested during the Visioning Exercise at the Kick-off Meeting.

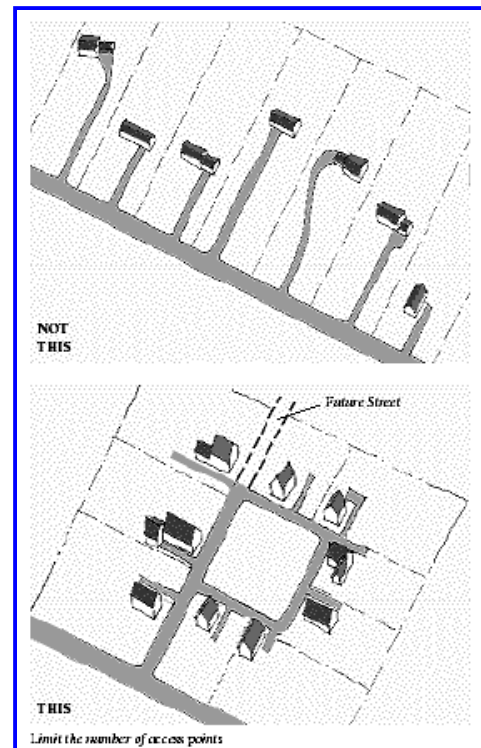
### PUBLIC TRANSIT

There are no public transit systems currently operating in the Town of Baileys Harbor. Mass transit via bus, high-speed rail, or other means is not likely to be established throughout Baileys Harbor in the next 20 years given limited demand, low population density, and a small overall population base. At this time, Baileys Harbor may not be able to provide the rider-ship necessary to support a complete transit system serving all areas of the Town. However, as the population of the Town age the need and market for some form of public transportation will grow.

During the Visioning Exercise held as part of the Kick-off Meeting five participants identified a community bus as a desired vision for the future. An on-call mini bus for seniors and ferry service were also identified as future visions.

### MAINTAINING RURAL CHARACTER

One technique to maintain rural roadside character is to utilize managed roadway access techniques. Roadway access refers to the number of points of ingress and egress from a road or highway. Managing roadway access points helps to promote safe and efficient travel and minimizes



disruptive and potentially hazardous traffic conflicts. Managed roadway access involves minimizing the number of driveways along a roadway and establishing standards for driveway spacing. Rather than promoting driveway after driveway along rural roads, shared driveways and streets are encouraged.

Responses to the Community Survey indicate that:

- 88% are satisfied or very satisfied with Town roads
- 87% are satisfied or very satisfied with County roads
- 93% are satisfied or very satisfied with State Highway 57

The preservation of rural character, particularly along the northern and southern portions of STH 57, is highly desirable by many residents and landowners. Particular mention has been made of views of Lake Michigan as travelers enter the Town from the south.

### COMPLETE STREETS<sup>8</sup>

A design strategy growing increasingly popular in America's cities and towns, particularly within tourist communities, is the *complete streets* movement. Complete streets aim to better integrate people and transportation systems (primarily roads).

The benefits of the movement include:

- **Complete streets make economic sense.** A balanced transportation system that includes complete streets can bolster economic growth and stability by providing accessible and efficient connections between residences, schools, parks, public transportation, offices, and retail destinations. Complete streets can reduce transportation costs and travel time while increasing property values and job growth. Research shows that building walkable streets and lowering automobile speeds can improve economic conditions for both residents and business owners, and anecdotal evidence indicates that home values increase on streets that have received complete streets treatments.
- **Complete streets improve safety.** They reduce crashes through safety improvements. One study found that designing for pedestrian travel by installing raised medians and redesigning intersections and sidewalks reduced pedestrian risk by 28%. Complete streets also improve safety indirectly, by increasing the number of people bicycling and walking. A recently published international study found that as the number and portion of people bicycling and walking increases, deaths and injuries decline.
- **Complete streets encourage more walking and bicycling.** Public health experts are encouraging walking and bicycling as a response to the obesity epidemic, and complete streets can help. One study found that 43 percent of people with safe places to walk

<sup>8</sup> Much of this section was excerpted from *Let's Complete America's Streets*, www.completestreets.org, 2009.

within 10 minutes of home met recommended activity levels, while just 27% of those without safe places to walk were active enough. Residents are 65% more likely to walk in a neighborhood with sidewalks. A study in Toronto documented a 23% increase in bicycle traffic after the installation of a bicycle lane.

- **Complete streets can help ease transportation woes.** Streets that provide travel choices can give people the option to avoid traffic jams, and increase the overall capacity of the transportation network. Several smaller cities have adopted complete streets policies as one strategy to increase the overall capacity of their transportation network and reduce congestion.
- **Complete streets help children.** Streets that provide room for bicycling and walking help children get physical activity and gain independence. More children walk to school where there are sidewalks. And children who have and use safe walking and bicycling routes have a more positive view of their neighborhood. Safe Routes to School programs, gaining in popularity across the country, will benefit from complete streets policies that help turn all routes into safe routes.
- **Complete Streets are good for air quality.** Air quality in our urban areas is poor and linked to increases in asthma and other illnesses. Yet if each resident of an American community of 100,000 replaced one car trip with one bike trip just once a month, it would cut carbon dioxide (CO<sub>2</sub>) emissions by 3,764 tons of per year in the community. Complete streets allow this to happen more easily.
- **Complete streets make fiscal sense.** Integrating sidewalks, bike lanes, transit amenities, and safe crossings into the initial design of a project spares the expense of retrofits later. Jeff Morales, the Director of Caltrans when the state of California adopted its complete streets policy in 2001, said, "By fully considering the needs of all non-motorized travelers (pedestrians, bicyclists, and persons with disabilities) early in the life of a project, the costs associated with including facilities for these travelers are minimized."

### WINTER ROAD DE-ICING

Many studies have linked increased salt concentrations in drinking water with highway salting operations. Concerns about road salt as a potential contaminant in drinking water date back to the 1950s, when it was discovered that salt was contaminating drinking water supplies because of improper storage and, in some cases, highway runoff.

The use of salt as a winter road de-icing agent is problematic for a number of reasons:

- Salt destroys soil structure by killing some soil bacteria. This allows more soil to erode into streams, taking the salt with it. Salt erosion contaminates drinking water to levels that exceed public consumption standards.
- Salt doesn't evaporate, or otherwise get removed once applied, so it remains a persistent risk to aquatic ecosystems and to water quality. Approximately 55 percent of

road-salt runs off with snow melt into streams, with the remaining 45 percent infiltrating through soils and into groundwater aquifers according to a 1993 study.

- Salt slowly kills trees, especially white pines, and other roadside plants. The loss of indigenous plants and trees on roadsides allows hardier salt-tolerant species to take over.
- Salt can change water chemistry, causing minerals to leach out of the soil, and it increases the acidity of water, according to Dr. Stephen Norton, a professor of Geological Sciences at the University of Maine.
- Salt acts like a desiccant and will dry out and crack animal paw pads - house pets are particularly susceptible.
- Road salt seeping into drinking water changes its flavor, and adds the excess dietary sodium associated with hypertension.
- Salt corrodes metals like automobile brake linings, frames, and bumpers, and can cause cosmetic corrosion. To prevent this corrosion, automakers spend almost \$4 billion per year.
- Salt can penetrate concrete to corrode the reinforcing rods causing damage to bridges, roads and cracked pavement.

Along many area roadways, salt-tolerant plants have become more common, including: annual salt marsh aster, salt meadow grass, narrow-leaved cattails, phragmites reeds, seaside goldenrod. Though no one has been able to point to a precise cause-and-effect relationship to show that salt runoff promotes the growth of these plants, it's clear that there is a connection. Salt changes water and soil conditions, and that affects which plants grow where.<sup>9</sup>

### TRANSPORTATION BUDGETING – CAPITAL IMPROVEMENTS PLAN

Road maintenance and improvement costs are a major expense and can consume a large share of the local budget. The development of a *Capital Improvements Plan* (CIP) and budget can aid in anticipating and funding future transportation needs. A CIP is a five to six year short-range plan with updates occurring annually. A transportation-oriented CIP will help identify and prioritize future expenditures, including:

- Park acquisition and improvements;
- Public buildings improvements and maintenance;
- Emergency vehicle purchase and replacement;
- Trail development; and,
- Street improvements (e.g. widening, crosswalks, signalization, corridor studies, etc.), among others.

Capital items are generally defined as those items that are expensive (\$5,000 or more) and will last at least 3-5 years. The CIP also includes improvement projects required for the community's future and the appropriate timeline and funding to be followed to implement the improvements. The general steps involved in developing and maintaining a CIP include:

<sup>9</sup> Excerpted from *Salt on Earth*, Chicago Wilderness Magazine, 2004.

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- Identifying desired capital items. Items should be categorized by type (i.e. road, fire, water, sewer, etc.). This process should involve staff, residents, plan commission, and elected officials.
  - Estimating the cost and means of financing each capital expenditure.
  - Comparing the desired expenditures to the budget to determine annual spending priorities.

The CIP process helps to ensure that improvements are made in a logical order and do not surprise local officials or taxpayers. Moreover, a CIP allows the community to focus on needs and goals and establish rational priorities.

Utility districts offer another tool used to provide a variety of public services and improvements including roads, sewers, stormwater, electricity and water. Utility districts establish a "district fund" to finance improvements. These funds are obtained through taxation of property within the district. Service costs are covered through direct billings

### **Goals, Objectives, and Policies**

The 2010 Amendment goals, objectives, and policies related to Transportation are presented in *Chapter 9: Implementation*.