

2005
Infrastructure Report
(Portage, Stark and Summit
County Governmental Entities)



ASCE Akron-Canton Section
2005

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Akron-Canton Section

<http://sections.asce.org/akron>

Introduction



Infrastructure is the basic physical framework of our society. The necessities and conveniences we have come to expect as Americans are directly tied to past investments in our infrastructure. Most of our existing infrastructure has been inherited from our parents, grandparents and in some cases, great-grandparents. The purpose of this report is to evaluate several categories of infrastructure which have a daily impact on those of us who live or work in the Counties of Portage, Stark and Summit. The focus of this report deals with those structures and facilities that are so massive in scale and necessary to our lifestyle that they are usually publicly owned.

Like all of mankind's work, infrastructure requires occasional maintenance and eventual replacement. Every dam built has some degree of leakage. When the amount of leakage becomes unmanageable or upstream development causes the bypass facilities to be overloaded, the results can be catastrophic. Every bridge in our climate eventually succumbs to the effects of weather, corrosion and deterioration. Water and wastewater pipes eventually corrode and break. Water and wastewater treatment systems require continual upgrading to remove the ever-increasing number of harmful chemicals which are necessary for our economy but seem to find their way into our water supplies and wastewater streams. Everyone who travels knows the value of a well-designed and well-maintained roadway system. These types of infrastructure are usually

so well designed and constructed that maintenance can be postponed, sometimes for many years. Nevertheless, postponed maintenance always eventually leads to a large bill for complete replacement of the facility.

The increasing number of largely unfunded regulations that are enforced on our water, wastewater and storm water systems is becoming an enormous financial burden to communities. Limited finances are available to communities to maintain and operate these facilities, and provide additional upgrades and improvements as required. Numerous other community improvement projects and Operation and Maintenance funds decrease the amount of financial resources for infrastructure. When funding sources such as the Transportation Equity Act for the 21st Century (TEA-21) are stalled in Congress this takes away funding necessary for our communities to engage in long-term transportation planning and financing. However, there are some available funding sources available to communities through Issue 2, OEPA, gasoline and license taxes and other funding agencies which provide some relief to improve our infrastructure. Communities also have local water and sewer bills providing some additional, but limited resources.

Through the daily efforts of our County and City Engineers, their staff, councils/commissioners, consultants and legislatures available funds are prioritized allocating funds toward the design, operation and maintenance of their infrastructure facilities.

Infrastructure evaluated in this report included: bridges, dams, roadways and wastewater and water systems. A brief summary of storm water has also been included in this report but was not evaluated due to the limited information available and rapidly changing conditions of our storm water issues relative to the storm events of the past few years. Ultimately, the goal of this report is to develop continued public awareness of the conditions of our local infrastructure.

Overview of ASCE National's Infrastructure Report Card

ASCE National (ASCE) released its first "*Report Card for America's Infrastructure*" in March 1998, an update in 2001 with another update to be released in March of this year. The intent of this report card is to raise public awareness of the condition of our Country's infrastructure. The developers of the Report Card utilized a variety of data sources as evaluation criteria. Much of this data was obtained through national and state records and reporting.

ASCE's 2001 report card reflected an overall grade of "D+" which was a slight improvement from the "D" awarded to the nation's infrastructure in 1998. The slight improvement in 2001 represented the efforts being made to begin addressing the infrastructure needs during the previous 3-year period. Specifically, slight improvements in five areas of infrastructure offset a decline in two areas. It should be noted that the areas of infrastructure represented on the national report card were evaluated by 11 prominent civil engineers representing a broad

spectrum of expertise. It is estimated the 5-year need to bring the United States' infrastructure up to standards is \$1.3 Trillion.

As a result of this report, dialogue has been established among civil engineers, political leaders, and respected industry leaders on key policy issues related to funding for our infrastructure. The content of the report card has also been discussed by several United States Presidents, the U.S. Secretary of Education and by members of the U.S. House of Representatives. Media coverage from television stations, radio stations and newspapers nationwide have also reported on the results of this Report card.

The issue of our country's aging infrastructure is gaining more attention and momentum. ASCE recently held a second National Economic Summit on December 9, 2004 in Washington, D.C. at the U.S. Conference of Mayor's Council for the New American City in which the topic of the Infrastructure Report Card was discussed. This reflects the growing awareness of our infrastructure by our elected leaders.

ASCE National is broadening dialogue and awareness and bringing it down to a Regional grass-roots level. ASCE National has

An additional challenge communities face in managing storm water includes a lack of information on the current storm water conveyance system. Inventorying communities' storm water conveyance systems (both public

encouraged each Section and Branch to promote the development of a report card for their region. The purpose is to bring awareness to our local residents, engineers and key decision makers, thereby resulting in the prioritization of much needed infrastructure improvements and the need for additional funding to improve, maintain and replace our existing infrastructure at local levels.

Overview of the Local ASCE Infrastructure Report

The ASCE Akron-Canton Section (Section) undertook the task of evaluating local infrastructure using locally obtained information. It is anticipated that this information is more accurate for the local area. The three main population centers in the 10-county Section service area (Portage, Stark, and Summit Counties) were evaluated. The overall grades for the infrastructure evaluated are included in this report. Separate Report Cards were also developed for each County.

Few other Regions have attempted to complete a report card similar to the National Report Card. The Section, however, has taken on this task and has taken the report card a step further by breaking it out into three of the most populated counties within the section. Future local reports will hopefully include additional counties. This constitutes a task which has not yet been completed by any other Section in the Country.

The Section's committee started out small as the approach to accomplish this major undertaking was planned. After the basic approach was

developed each city and county was asked to provide a representative to the committee. This allowed each community the opportunity to have input into the development of the criteria used to evaluate each component of infrastructure and to provide expertise as well. Each community provided a representative who served as either an active or corresponding member of the committee. In addition to each community the committee also felt it was important to have representatives from the regulatory agencies, such as the Ohio Environmental Protection Agency (OEPA) and the Ohio Department of Transportation (ODOT). Key planning agencies were also contacted for their input and for use of their resources.

The infrastructure components evaluated by the Section included the following: bridges, dams, roadways, water systems and wastewater systems. Surveys were sent out to each community requesting information on their applicable systems. Evaluation criteria was then developed for each aspect of infrastructure. All information gathered was organized, reviewed and evaluated. A grading system was set up similar to the ASCE National Report Card grading system. The results have been summarized in this report.

The ASCE Akron-Canton Section is proud to present this document - the ASCE Local Infrastructure Report.

BRIDGE INFRASTRUCTURE

B-

Current Conditions

Many motorists today are aware of the risks that they take while driving on today's highways. They go about their business, realizing the inherent dangers of accidents caused by oncoming traffic, their own negligence, and unpreventable or unforeseen hazards. More often than not, however, they take for granted the quality, integrity, and safety of the highway and bridge facilities they use to move about on a routine basis.

The fact is, across northeast Ohio, and just about everywhere else across the United States, thousands of aging and deteriorating highway bridges exist. Many of these aging bridges were constructed as part of the Interstate Highway System in the 1950's and 1960's and are either at or near the end of their expected service life. Additionally, in areas like northeast Ohio, the harsh environment and the use of deicing chemicals such as salt and calcium chloride have caused many bridges that are only 15 to 20 years old to become structurally deficient and require major maintenance, major repair or even replacement.

As of 2000, 27.5% of the nation's bridges (162,000) were classified as being structurally deficient or functionally obsolete. By definition, bridges that are structurally deficient have structural components that have deteriorated to a level that require the bridge to be closed or be restricted to lighter vehicles. A functionally obsolete bridge has older design features that cannot safely accommodate current traffic volumes, vehicle sizes or weights. It was estimated that it would cost \$9.4 billion a year for 20 years to eliminate all bridge deficiencies.

Evaluation Methodology

The following grading scale, based on the General Appraisal Rating of each bridge, was developed.

| Grade | General Appraisal Rating | |
|----------|--------------------------------------|----------------------------------|
| | Rating | Rating Description |
| A | Very Good to Excellent Condition | No problems noted |
| B | Satisfactory to Good Condition | Minor deterioration/problems |
| C | Poor to Fair Condition | Minor to advanced section loss |
| D | Critical to Serious Condition | Local Failures/ Bridge should be |
| F | Failed or Imminent Failure Condition | Bridge is closed to traffic |

BRIDGE INFRASTRUCTURE

Results

The General Appraisal Rating is related to the lowest condition rating between the bridge superstructure and substructure. The overall grades of bridges in Portage, Stark and Summit Counties are shown in the table below. The grades are above the national average of “C”, but still indicate improvements are needed to ensure that our bridge infrastructure remains safe for the traveling public.

| Governmental Entities | | | |
|-----------------------|--------------|---------------|---------|
| Portage County | Stark County | Summit County | Overall |
| B- | B- | B | B- |

Investment Needs

The natural aging of the nation’s steel and concrete bridges coupled with harsh and corrosive environments and the use of roadway deicing chemicals have put a great burden on the finances of federal, state and local governments, not to mention the inconvenience to the public and motorists due to construction detours and delays. As we move into the future, replacement of a bridge will become an increasingly unattractive alternative. Growing construction costs, increased losses due to traffic disruption during repair or replacement, and continuing tight budgets will force life extension to be the only viable alternative for our aging bridges.

Local, County, and State Department of Transportation (DOT’s) must continue to manage, maintain, and invest in their bridges to maximize their design life. Aggressive maintenance practices can add ten years to the life of a bridge and innovative materials can double the life of a new bridge. DOT’s must continue inspection programs to prioritize needs and must continue to strive to address local concerns affected by deficient bridges. Through periodic bridge inspections, structural deficiencies can often be identified and addressed early on. If a bridge is allowed to deteriorate from a “Fair” condition to a “Poor” condition, the costs of repair and rehabilitation rise disproportionately.

The most important factor in improving the nation’s bridge infrastructure is funding. On September 30, 2003, the Transportation Equity Act of the 21st Century (TEA-21), which authorized \$218 billion for the nation's highway system, expired, along with funding to state highway and transit programs. Congress and the Administration must act to reauthorize this important legislation with sufficient funding to address the significant needs identified for America's surface transportation systems.

DAM INFRASTRUCTURE

D

Current Conditions

Dams provide a life-sustaining resource to people in the region. Dams have multiple functions including recreation, flood control, water supply, agriculture, and hydroelectric power. Unlike most infrastructure facilities, the majority of dams are privately owned and operated. Due to the risk of dam failure and the critical importance of dams, the State of Ohio's Department of Natural Resources (ODNR), through the Division of Water, regulates dam construction, operation and maintenance.

While there are over 50,000 dams in Ohio, a great majority of these are small and do not fall under the jurisdiction of Ohio's Dam Safety Laws. About 2,700 dams across the state are regulated and about 74 of these are in the Portage, Stark and Summit County region. These dams are owned by 16 public and 58 private entities. Of the total, 11 are classified as High Hazard Class I Dams whose failure would probably result in the loss of human life, 17 are classified as Significant Hazard Class II with no loss of life expected but damages to high value property and major roads would be likely, and 46 are classified as Low Hazard Class III where only lower value property and minor roads are at risk.

Evaluation Methodology

The dam subcommittee of the ASCE Infrastructure Report Project developed criteria to grade the condition of existing dams in the three county area using dam safety inspection reports generated by the Division of Water. The program ODNR has developed looks at critical elements of each dam and assesses the adequacy of each, providing recommendations to the owner to improve the overall condition of the dam and maintain its safety and integrity. These inspection reports contain data that the committee used to assign grading points in order to generate a dam report card.

DAM INFRASTRUCTURE

The criteria and point system are explained as follows:

1. Hydraulic Adequacy—20 points maximum
2. Upstream Slope—15 points maximum
3. Crest—15 points maximum
4. Downstream Slope—12 points maximum
5. Seepage—12 points maximum
6. Principal Spillway—10 points maximum
7. Emergency Action Plan—5 points maximum
8. Operation and Maintenance Manual—5 points maximum
9. Emergency Spillway—3 points maximum
10. Lake Drain—3 points maximum

Explanation of the above criteria can be found on ODNR's Dam Safety Inspection Checklist.

Two additional criteria were added to ODNR's checklist in our effort to evaluate the dams a weighting factor for the class of the dam and an adjustment factor that accounts for how recently the dam was inspected.

Results

| Governmental Entities | | | |
|-----------------------|--------------|---------------|----------|
| Portage County | Stark County | Summit County | Overall |
| D | C- | D | D |

Investment Needs

The cost of correcting the inadequacies of all of these dams is not available at present. Considering that more than three-quarters of the dams in the region are privately owned, financing the capital improvements identified by the state's inspections will be difficult. The Ohio Water Development Authority (OWDA) has a Dam Safety Linked Deposit Program to provide lower than market rate loans to private dam owners to make mandated repairs.

ROADWAY INFRASTRUCTURE

C

Current Conditions

Our transportation system is a valuable asset to our area. However, it can also be a hazard depending on the conditions of our roadway. Vehicle travel on Ohio's highways increased by 15% from 1991 to 2001 while Ohio's population only grew by 5% over the same period. As a result, 42% of Ohio's urban freeways are congested. As the number of vehicles on the roadways increases, the condition of the roads continues to deteriorate. In a survey of the state's civil engineers conducted in 2003 the number one infrastructure concern in Ohio is roads. 46% of Ohio's roads are in poor or mediocre condition. Driving on roads in need of repair costs Ohio's motorists \$1.2 billion a year in extra vehicle repairs and operating costs - \$153 per motorist. Traffic accidents on Ohio's roadways and intersections also remain a concern, especially those that occur due to correctable deficiencies in geometry and condition.

Vehicular safety is a primary concern in the design of public roadways. Local Municipal Planning Organizations (MPO) obtain and evaluate accident data for the local area. The Akron Metropolitan Area Transportation Study (AMATS) evaluates the Summit and Portage County area while the Stark County Area Transportation Study (SCATS) evaluates Stark County. Vehicular accidents occur along all roadways, but tend to be concentrated at intersections. While the data obtained from both agencies is inconsistent, we do know that approximately 38% of accidents occurring at intersections in the three county area involved either personal injury or fatalities.

Evaluation Methodology

The Akron-Canton Section of ASCE evaluated the roadway infrastructure and produced grades for the Counties of Portage, Stark and Summit by obtaining available local data. Pavement condition and efforts to maintain and improve pavement conditions was used to evaluate the roadway infrastructure. Data was obtained from county and local agencies via questionnaires. The data was evaluated and counties graded. Pavement condition carried a majority of the weight in the grading with the maintaining agencies' pavement management and maintenance plans also receiving consideration.

ROADWAY INFRASTRUCTURE

Although congestion and roadway safety are also important components of the roadway infrastructure, they were not used in this analysis due to a lack of data and inconsistent reporting methods.

Accident data obtained from AMATS and SCATS covered three year periods and only included intersections with a minimum number of accidents. Each county was broken down by cities and those intersections located outside of city limits were grouped by county/township. However, with the data obtained from both MPOs being inconsistent in their evaluations the data was not included in the evaluation. However, the data indicates a significant need for improvements to local roadways, specifically at intersections. Realistically, no amount of investment will stop all accidents at any given location. However, by making physical improvements to dangerous intersections, the severity of the accidents can be greatly reduced. Improvements to the amount of sight distance in all directions and signalization will help reduce the number of accidents and especially those involving injury.

Results

The resulting grades are as follows:

| Governmental Entities | | | |
|-----------------------|--------------|---------------|---------|
| Portage County | Stark County | Summit County | Overall |
| C | C- | C | C |

Although the above grades are slightly better than the nation average of D+, it must be considered that the local grades reflect only pavement condition. It can be expected that the inclusion of congestion and roadway safety would reduce the grades for each county, making them closer to the national average.

Investment Needs

According to the FHWA's 2002 Conditions and Performance Report approximately \$61 billion annually is required to maintain the nation's roadways. An additional \$86 billion annually is required to improve the nation's roadways. On September 30, 2003, TEA-21 expired, along with funding to state highway and transit programs. Congress and the Administration must act to reauthorize this important legislation with sufficient funding to address the significant needs identified for America's surface transportation systems. TEA-21 has been extended 5 times and has a May 31, 2005 deadline to be reauthorized.

STORM WATER INFRASTRUCTURE

Current Conditions

Storm water management includes the “*functions associated with planning, designing, constructing, maintaining, financing, and regulating the facilities (both constructed and natural) that collect, store, control and/or convey storm water.*”¹ Storm water management is an ever increasing concern of local governmental agencies. Recent flooding in in the Counties of Portage, Stark and Summit in 2003 and 2004 has reinforced the importance of managing storm water. In addition, new federal regulations requiring additional storm water controls involving improvements to water quality and natural disaster planning have caused most of the governmental agencies within the local area to reevaluate their storm water management programs.

The management of storm water presents many unique issues that are not a part of managing other utilities. Most notably, the lack of funding designated for storm water conveyance systems’ construction and maintenance is an issue many governmental agencies are trying to tackle. Most storm water projects are currently funded from communities’ General Funds, unlike water or sanitary improvements which have a dedicated revenue source (water and sewer bills). General funds are always subject to variability in income and disbursements. Another unique issue in managing storm water is that current conveyance systems are a mixture of public and private systems. Most natural drainage ways and detention/retention facilities are owned and maintained by adjacent property owners, not the local governmental agency. Also, storm water follows drainage basins, not political boundaries. Therefore, correcting the larger storm water concerns usually requires cooperation between several governmental agencies and even private property owners..

STORM WATER INFRASTRUCTURE

and private) is a major investment that is required by most communities to begin managing storm water.

When the evaluation of communities' storm water management programs were started, many local governmental agencies were managing storm water on an as-needed basis. Less than a handful of governmental agencies had a designated funding source for storm water management. However, due to recent events and regulations, most governmental agencies within the Portage, Stark and Summit County area are currently changing how they manage storm water. Changes include creating designated funding sources (storm water utilities), revising regulatory requirements on development, increased maintenance, management of water quality as well as construction related projects.

Therefore, grading for each community is not included in this report card. However, subsequent Report Cards will include grades for storm water management.

WASTEWATER INFRASTRUCTURE

C+

Current Conditions

The infrastructure that collects and transports wastewater and combined sewerage to the treatment facilities is a critical and essential link in the publicly owned treatment works and is essential to the health of the streams, rivers and lakes, and public health.

The area includes 6 watersheds and the Mid-Continental Divide between the Great Lakes Basin to the north and the Ohio River Basin to the south. The major watersheds for each county are as follows: Portage County: Cuyahoga River and Mahoning River Watersheds; Stark County: Tuscarawas Watershed; Summit County: Cuyahoga River and Tuscarawas River Watersheds. All of these watersheds have special needs and are in various stages of the Ohio EPA Total Maximum Daily Load (TMDL) process. The TMDL process is required due to a failure to meet water quality standards including the beneficial use of aquatic life and recreation standards. There are many suspected causes of the impairments in these watersheds including, but not limited to, discharges from wastewater treatment facilities and collections systems.

Other special conditions include the Cuyahoga River Remedial Action Plan, designation as an American Heritage River and segments classified as a scenic river. The Tuscarawas river watershed is the largest in the State of Ohio. There is also the influence of the Ohio-Erie Canal system.

These factors all heavily influenced the rating of the facilities and collection system

Historically, the Construction Grants Program in the late 70s and early 80s provided significant investment of federal money into the facilities and collection system. In the mid to late 80s, significant progress was made through General Plans and local dollars. Along with full implementation of Industrial Pretreatment Programs and the elimination of Separate Sanitary Sewer Overflows (SSOs), significant progress has been made in the water quality of the area watersheds.

Generally the wastewater treatment facilities operate very well and achieve a high level of treatment with significant federal and local dollars being spent. Areas still needing improvement include repairing and replacing failing (and leaking) sewer systems, elimination of sanitary sewer overflows and control of combined sewer overflows.

WASTEWATER INFRASTRUCTURE

It is important to note that before water quality can be fully attained, many other factors, such as storm water, non-point source runoff, sediment contamination, stream modification and urbanization, air deposition, etc, need to be addressed. Also, use designations for urban streams need to be fully evaluated and considered.

Evaluation Criteria

The grades were developed from data collected from several sources. They included a survey of the individual facility owners and operators, a file review at the Northeast District Office of Ohio Environmental Protection Agency (EPA), documents from Ohio EPA web page, US EPA Envirofacts Warehouse, US EPA Enviromapper, US Census Bureau, and interviews of regulatory staff at Ohio EPA. A representative sampling (large to small) of systems were investigated in each county.

The categories of grading included: facility flows, bypass provisions, violations, stream attainment, costs and planning activities, and collection. A rating system of 0 to 5 was used for various measures in each category for each facility reviewed and a weighted matrix was developed.

Since the goal of wastewater treatment and collection is the attainment of water quality, the stream attainment weighting was the highest. The weightings were as follows:

| | |
|---------------------------|-----|
| Facility Flows | 10% |
| Bypass Provision | 10% |
| Violations | 20% |
| Stream Attainment | 30% |
| Costs/Planning Activities | 10% |
| Collection | 20% |

Results

Generally, the facilities scored high and the stream attainment and collection systems scored low. It appears that Summit and Stark scored lower due to the combined sewer overflow needs and the lack of information on the Tuscarawas River, respectively.

| Governmental Entities | | | |
|-----------------------|--------------|---------------|---------|
| Portage County | Stark County | Summit County | Overall |
| B- | C+ | C | C+ |

WASTEWATER INFRASTRUCTURE

Issues of concern

Issues of concern include replacement costs (post construction grants program), combined sewer overflow program requirements, sanitary sewer overflow elimination, more stringent effluent limitations due to TMDL, mercury, whole effluent toxicity testing, Homeland Security, environmental management systems, competitive operations, and asset management. These issues all represent significant investment needs from local, state and federal sources.

Investment Needs

The Ohio Public Works Commission prepares a study of existing capital improvement needs and conditions, based on data collected for communities applying for financial support.

These costs do not include new facilities and collection systems to meet the requirements of combined sewer overflows and more stringent regulation. It only includes those entities that applied to the Ohio Public Works Commission for funding and reflects a repair need of \$730 million!

The USEPA in its Report to Congress entitled, Clean Watershed Needs Survey 2000, identified a need of \$8.096 billion for the state of Ohio for wastewater treatment and collection facilities.

WATER INFRASTRUCTURE

C+

Current Conditions

The drinking water supply and distribution system has arguably the most direct impact on quality of life, health, and well being of the public. Many take for granted that when they turn on the faucet, a clean, safe, seemingly limitless supply of water is at their disposal. What most people fail to realize is the effort, resources, and expense required to provide safe drinking water and the discipline needed to ensure public confidence in that safety is not compromised. It is estimated that 10.8 million people are regularly served by one or more of the 5,500 + public water systems in the State of Ohio. Ohio’s public water systems range in size from serving 25 persons to over 1.3 million persons. Disparity in size and source of raw water contributes to the overall complexity in complying with the State’s drinking water regulations. These issues are compounded when infrastructure is not maintained.

Evaluation Methodology

Information was obtained from a variety of public record sources. The following criteria and weighting were used to evaluate the water treatment plants and distribution systems:

Treatment Plant

- Plant Condition (financial) - 35%
- Capacity and Quality - 10%
- Compliance - 35%
- Miscellaneous Criteria - 10%
- Grade by System or Regulator - 10%

Distribution Systems

- System Condition (financial) - 40%
- Pressure and Supply - 10%
- Compliance - 30%
- Miscellaneous Criteria - 10%
- Grade by System or Regulator - 10%

Results

Based upon the above criteria, a composite score was determined for each municipality. Additional weighting factors, based upon population served, were then used to determine a county grade and then an overall three-county grade. The grades are shown below:

| Governmental Entities | | | |
|-----------------------|--------------|---------------|---------|
| Portage County | Stark County | Summit County | Overall |
| B- | C+ | C+ | C+ |

WATER INFRASTRUCTURE

Investment Needs

According to the ASCE **Report Card for America's Infrastructure**, the National grade for Drinking Water infrastructure was a "D". We found the Portage, Stark and Summit County area to be a C+. Although it is accurate to conclude this region has made improvements to the drinking water infrastructure, we believe our overall assessment mirrors that of the Nation: drinking water infrastructure is significantly behind other areas of infrastructure in funding priority. The United States Environmental Protection Agency (US EPA) conducted a needs assessment in 1995 and 1999 to determine the projected infrastructure needs on a state-by-state basis for the next 20 years. The report concluded that over \$140 billion is needed over the next 20 years to improve the Nation's water supply systems. Ohio was estimated to need \$4.96 billion over 20 years to improve its water supply system. Locally, a figure could not be obtained in a practical, accurate manner. However, the Ohio Public Works Commission Capital Improvements Reports could provide a good basis for future local decision making on public works funding.

In general, each of the water systems evaluated showed signs of improvement based upon capital expenditures at the water treatment plant. This is particularly evident in Portage County. Numerous treatment plant improvements in Stark and Summit Counties are either ongoing or will soon be underway; it is anticipated the treatment plant grades will rise in the future.

In contrast to treatment plant investment, distribution system infrastructure funding continues to lag. Though not readily evident, it is reflected in the above grades because the distribution system evaluations were, as a whole, lower than the treatment plant grades, thereby lowering the overall grade. It should be noted that greater awareness on the part of water systems with regards to more proactive distribution system practices, such as looping dead end mains, flushing low use water mains, and improving storage tank fluctuation levels, has maintained a relatively high level of water quality. These operational changes, unfortunately, can only help maintain water quality or minimize deterioration of water quality provided by the treatment plant; water quality typically cannot be improved once it leaves the treatment plant. Deteriorating infrastructure will continue to exacerbate water quality deterioration prior to delivery to the customer's tap

Recent regulatory focus has been aimed at strengthening source water protection, security, and health based treatment and monitoring requirements directly related to the water treatment plant infrastructure.

SUMMARY

Our infrastructure is aging and our available investments are lagging. Our concern is the continued expectations for the conveniences, public health and quality of life we have built in this country. The choice is ours to make today: leave to our children and grandchildren an infrastructure which has been improved by timely infusions of capital, or we can leave them a huge bill for a crumbling infrastructure whose maintenance and improvement we chose to ignore.

As a result of four years of compiling and reviewing all available data the resulting average grade for the infrastructure evaluated in this report for the counties of Portage, Stark and Summit is a “C”. This grade is slightly above the National average of a “D+”, which includes several categories which were not evaluated at the local level. The average grade of the three counties infrastructure is summarized in the table below.

| INFRASTRUCTURE | GRADE |
|-------------------|-----------|
| Bridges | B- |
| Dams | D |
| Roadways | C |
| Wastewater | C+ |
| Water | C+ |

Individual Report Cards for each county, summarizing their infrastructure, are located at the end of this report.

Communities are continually striving to improve their infrastructure. However, there are still many improvements which need to be completed and continued maintenance which needs to be sustained. Additionally, the condition of our storm water systems is still an unknown factor due to the lack of available information. Financial resources to meet these objectives needs to be made available to our communities. Continued proper maintenance and appropriate investments in our infrastructure are required to uphold the standards we have come to expect. This can be done through the development and building of relationships with the public and our local and governmental leaders. We need to utilize the resources of our local leaders to help promote the results of this report and educating their peers so that necessary funding can be prioritized.

We need to continue to invest in our infrastructure...our future...for the sake of our economy and, most importantly, for the health and wealth of our children and grandchildren!