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The 2030 Hennepin County Comprehensive Plan Update is a composite document combining various planning elements. These elements have been revised and updated since 1982. To date, the practice has been to maintain separate reports which contain the more specific information and the higher level of detail.

As a fully urbanized county in the Twin Cities, Hennepin County is somewhat unique in that it has no land use administration authority. State Statutes recognize this unique situation, and they require only the following elements to be summarized as part of the Hennepin County Comprehensive Plan:

- Wastewater Planning and Individual Sewage Treatment Systems (ISTS)
- Regional Park Systems (prepared by Three Rivers Regional Park District)
- Surface Water Management
- Transportation

Summaries of the county activities in each of these areas are provided in the following sections. The most extensive part of the comprehensive plan concerns transportation. The complete 2030 Hennepin County Transportation Systems Plan (2030 HC-TSP) is being provided as a separate report with only a brief summary being included within this Comprehensive Plan document.

When the draft 2030 HC-TSP was transmitted to the Metropolitan Council in December 2008, the county was notified regarding the need to submit a complete comprehensive planning document with the four elements. The Metropolitan Council also later provided informal comments to the county regarding additional information desired for the Comprehensive Plan elements. This document incorporates the necessary items mentioned by the Metropolitan Council.

Each planning element of the Comprehensive Plan has undergone extensive public review and comment:

- Wastewater Planning and Individual Sewage Treatment Systems (ISTS)
  Extensive public and agency review was incorporated into the process of adopting Ordinance No. 19 in 1999.

- Regional Park Systems (prepared by Three Rivers Regional Park District)
  The Park District has routinely held public open house meetings as part of the trail master planning process. These meetings and the comments received are documented within the individual trail master plans and in the overall Master Plan adopted by the Park District in 1998. In addition, the Park District routinely performs “visitor studies” throughout
their park and trail systems which gather comments via on-site interviews and mail-back surveys. As an example, as part of the recent Hyland Bush Anderson Lakes Park Reserve Joint Master Plan (December 2009), approximately 220 persons attended public meetings held in August 2009 at the Richardson Nature Center.

• Surface Water Management

A public review and comment/participation process was carried out in conformance with the requirements mandated by the National Pollution Discharge Elimination Program which is regulated by the Minnesota Pollution Control Agency (MPCA). In addition, an annual public meeting to present the Stormwater Pollution Prevention Plan (SWPPP) has been held annually each spring since the initial NPDES permit was issued in 2006.

• Transportation

The 2030 HC-TSP was initially distributed to cities and agencies as a partial draft in June 2008, with a follow-up of a complete draft at the end of 2008. Public informational meetings and presentations were made throughout Hennepin County during mid 2009, and the draft was revised based on comments received in the fall of 2009. Some final adjustments were made to the plan in early 2011 to reflect updated regional plans and current county policies. Further details are provided in the plan summary and in the 2030 HC-TSP document itself.
Section 2
Wastewater Planning and
Individual Sewage Treatment Systems (ISTS)

Background

Hennepin County provides a septic permitting, inspection, and enforcement program in order to protect ground surface waters, provide consistent regulation across city boundaries, and to prevent waterborne illness. This program covers Individual Sewage Treatment Systems (ISTS) / Subsurface Sewage Treatment Systems (SSTS).

The government ordinance, Hennepin County Ordinance No. 19, went into effect January 1, 2000. Ordinance No. 19 adopts the State of Minnesota Rules governing individual sewage treatment systems, MN Rules Chapter 7080. A copy of the ordinance is included in Appendix A of this section.

The ISTS / SSTS program for Hennepin County is administered by the Human Services and Public Health Department (HSPHD).

Recent legislation has been signed into law that would require revisions to local ISTS / SSTS ordinances. These modifications must be adopted by local agencies by February 4, 2012. All agencies (such as Hennepin County) that have already adopted an ISTS / SSTS ordinance are required to continue enforcing their current ordinances until a new one is adopted. Hennepin County will update its ISTS / SSTS ordinance by February 4, 2012 to include language related to system maintenance (7080.2450 and 7082.0600 from 2008 numbering) for new and replacement systems. Hennepin County will update procedures for maintenance of existing systems to comply with the new rules.

Jurisdiction

Hennepin County provides a permitting and inspection program for those cities that have officially delegated their program to the county. In these cities, the county administers permits for both residential and commercial septic systems.

The cities where Hennepin County administers permitting and inspection services include:
The location of these cities within Hennepin County are shown on the map on the following page.

In addition to the cities mentioned above, it is anticipated that Hennepin County will assume the administration of the ISTS / SSTS programs in the following cities:

- City of Rogers - an agreement has been signed transferring administration authority in March 2010.
- Hassan Township - has recently requested Hennepin County to assume the administration on their ISTS / SSTS program to begin in late 2010 or early 2011.
- City of Wayzata – is currently considering transferring the administration authority, however no official action has yet been completed.

The Health Authority has the following duties and responsibilities in administering the ISTS / SSTS program:

A. To review all applications for ISTS / SSTS.
B. To issue all required permits.
C. To conduct construction inspections and to perform all necessary tests to determine its conformance with this Ordinance.
D. To investigate complaints regarding ISTS / SSTS.
E. To perform compliance inspections and to issue Certificates of Compliance or Notices of Noncompliance where appropriate.
F. To issue Stop Work Orders and Notices of Violation pursuant to this Ordinance.
G. To take complaints to the Municipal or County Attorney for violations of this Ordinance.
Cities Regulated by Hennepin County for Septic System

Hennepin County

regulated-cities_SEPTIC_101706.mxd
Source: Hennepin County HSPHD - Public Health Protection, 10/2006
Prepared by: Hennepin County HSPHD - Public Health Protection, 10/17/2006
H. To maintain proper records for ISTS / SSTS including site evaluation records, design records including calculations and summaries for all system component sizings and as-builts, complaints on noncompliance, compliance inspections, site evaluations, applications and exhibits, variance requests, issued permits, Certificates of Compliance, and enforcement proceedings.

I. To submit annual reports to the MPCA to demonstrate enforcement of this Ordinance per Chapter 7080.0310.

**Permitting**

A permit from the Health Authority is required before any ISTS / SSTS in Hennepin County’s jurisdiction is installed, replaced, abandoned, altered, repaired or extended. Installation, replacement, alteration, repair, or extension of an ISTS / SSTS shall not begin prior to the receipt of a permit from the Health Authority for each specific installation, replacement, alteration, repair or extension pursuant to this Ordinance. Such permits are not transferable as to person or place. Such permits shall expire 12 months after date of issuance. Upon request of an inspector, permits shall be provided by the permittee at the time of inspection.

Permits shall not be required for the following activities:

A. Repair or replacement of pumps, floats or other electrical devices of the pump.
B. Repair or replacement of baffles in the septic tank.
C. Installation or repair of inspection pipes and manhole covers.
D. Repair or replacement of the line from the building to the septic tank.
E. Repair or replacement of the line from the septic tank or pump chamber to the distribution box or lines.

Appendix B contains a sample copy of a ISTS / SSTS permit application.

**Inspection**

Compliance inspections shall be conducted by the Health Authority anytime an ISTS / SSTS is installed, replaced, altered, repaired, or extended. The installation and construction of the ISTS / SSTS shall be in accordance with the permit requirements and application design. If any ISTS / SSTS component is covered before being inspected by the Health Authority, it shall be uncovered if so ordered by the Health Authority. Proposals to alter the permitted construction shall be reviewed and the proposed...
change accepted by the Health Authority prior to construction. Inspections shall be conducted at least once during the construction that is prior to covering of the ISTS / SSTS to assure that the system has been constructed per the submitted and approved design.

**Complaint Investigation / Program Enforcement**

The HSPHD maintains a complaint monitoring and enforcement process that includes the following process steps:

1. Call is received. HSPHD completes a general complaint form recording the information of the complaint. The details of the complaint are “private information” and cannot be released until resolved. Even when resolved, the complainants name is not released without consultation and approval of the County Attorney.

2. Septic program staff will conduct a site visit to see what evidence they can collect without trespassing. The logical way is to view the site from the complainant’s property with their permission or other permissible viewing location. Typically, a neighbor makes complaints of septic discharges.

3. Staff will attempt to investigate it either the same day or the next County business day. Staff will take photographs or videotape the discharge site.

4. If there is not a way to observe the discharge, then we contact the owner and seek permission to investigate. If the owner or renter will not allow access, then a search warrant will be sought.

5. The evidence collected is then discussed with their supervisor and a plan of action is made.

6. If the complaint appears to be valid, the owner is contacted as soon as possible.

7. Using the form enforcement letter as a model, a certified letter is sent to the property owner. A second letter is sent regular mail in a plain envelope to ensure the property owner receives the letter even if they refuse the certified letter. A copy of enforcement correspondence is cc’ed to the building official of the city in which the property is located and the County Attorney. (see form letter in Appendix C)

8. Staff typically attempts to contact the property owner after drafting the enforcement letter. This is done via telephone and gives the owner a chance to take corrective action even before receipt of the certified letter. In some cases, the letter is hand delivered by staff.

9. Sewage that discharges on to the ground surface, into a
surface or ground water, or backs up into a dwelling is classified as an “imminent health threat” requiring correction within ten months according to septic laws and rules. Local septic programs can set a lesser amount of time for correction.

10- ** Imminent health threats are also “public health nuisances.” Under County Ordinance 25 and statute 145A, Boards of Health can issue a ten-day notice to correct the nuisance situation.

11- Hennepin County uses both the ten-day and the ten-month requirements to correct imminent health threat systems. The County’s enforcement letter requires the discharge be stopped within the ten days through pumping the tanks and keeping the system on a strict pumping contract until repaired or replaced. If the discharge is stopped, then the nuisance is abated. Then the system must be repaired or replaced within ten months or the current construction season.

**Record Keeping**

HSPHD maintains a database of the septic system information. It contains about 5,000 records (addresses) in the database. An example of the database format is shown below:

![Database Example](image-url)
The county sends owners of septic systems maintenance letters with accompanying mailback postcards (see Appendix C). The owners are asked to complete the postage-paid postcards with the pumping / maintenance information about the septic system, which is then entered into the county septic inventory database.

If for some reason the postcard is not received in a timely manner, a reminder letter and postcard will be continually sent annually until: 1) information is finally received, 2) a complaint investigation is conducted, or 3) until the current owner applies for a septic permit. A permit is not issued until the pumping / maintenance information is collected.

**Additional Information**

HSPHD also maintains informational brochures that explain the ISTS / SSTS Program for homeowners and persons interested in Ordinance No. 19. These two brochures are entitled:

- Hennepin County Individual Sewage Treatment System Program – Homeowner’s Guide
- Hennepin County Individual Sewage Treatment System Program – Ordinance Information and Jurisdiction

Copies of these two brochures are included in Appendix D of this section.
Appendix A
Hennepin County Ordinance Number 19
Individual Sewage Treatment System (ISTS)
SUBDIVISION 1: GENERAL PROVISIONS.

1.1 Purpose. This ordinance is enacted to provide minimum standards for the regulation of individual sewage treatment systems (ISTS) including: their proper location, design and construction; their necessary modification and reconstruction; their operation, maintenance and repair for the purpose of protecting surface water and groundwater from contamination by human sewage and waterborne household and commercial wastes; the protection of the public's health and safety; and the elimination and prevention of the development of public nuisances, pursuant to the authority granted under Minn. Stat. Chapters 115 and 145A and Minnesota Rules Chapter 7080 and as amended that may pertain to sewage and wastewater treatment.

1.2 Objectives. The principal objectives of this Ordinance are as follows:

1.21 The protection of Hennepin County's lakes, rivers and streams, wetlands, and groundwater essential to the promotion of public health, safety, welfare, socioeconomic growth and development of the County in perpetuity.

1.22 The regulation of proper ISTS construction, reconstruction, repair and maintenance to prevent the entry and migration of contaminants, thereby ensuring the non-degradation of surface water and groundwater.

1.23 The establishment of minimum standards for ISTS placement, design, construction, reconstruction, repair and maintenance to prevent contamination and, if contamination is discovered, the identification and control of its consequences and the abatement of its source and migration.

1.24 The appropriate utilization of privy vaults and other non-water carried ISTS.

1.25 The prevention and control of water-borne disease, lake degradation, groundwater related hazards, and public nuisance conditions through technical assistance and education, plan reviews, inspections, ISTS surveys and complaint investigation.

SUBDIVISION 2: DEFINITIONS.

2.1 Health Authority. The Hennepin County Community Health Department and its designated agent who shall be a qualified employee or licensee.

2.2 Non-Standard Systems. ISTS that are Alternative, Performance or Other Systems as described in Minnesota Rules, parts 7080.0172, 7080.0178 and 7080.0179.

2.3 Other Establishment. Any private or public structure, other than a dwelling, that generates sewage having characteristics other than residential-type waste or has an average waste flow greater than 2,000 gallons per day and discharges to an individual sewage treatment
system.

2.4 **Owner.** The fee owner(s) and, if applicable, the contract-for-deed purchaser. Ownership interests shall be determined by reference to the records of Hennepin County. The owner of each lot served by an ISTS is responsible for the lawful operation and maintenance of each ISTS.

2.5 **Standard System.** ISTS designed and installed in accordance with the construction standard specified in Minnesota Rules, Chapter 7080.0060-7080.0170.

**SUBDIVISION 3: STANDARDS INCORPORATED BY REFERENCE.**

3.1 This Ordinance hereby incorporates by reference Minnesota Rules Chapter 7080, sections 7080.0020; 7080.0060; 7080.0065; 7080.0110; 7080.0115; 7080.0120; 7080.0125; 7080.0130; 7080.0150; 7080.0160; 7080.0170; 7080.0170, subpart 2, item C, subitem (1), unit (b), Table Va; 7080.0172; 7080.0175; 7080.0176; 7080.0178; and 7080.0179 being the sections containing the technical standards and criteria contained in the "Individual Sewage Treatment Systems Program."

**SUBDIVISION 4: JURISDICTION.**

4.1 **Municipalities.** Municipalities in Hennepin County that elect to regulate Individual Sewage Treatment Systems shall do so pursuant to Minnesota Rules, Chapter 7080.0305-7080.0315. Municipalities that elect to assume or abandon ISTS jurisdiction shall:

A. Provide verification to the Health Authority of its intention to assume or abandon jurisdiction of Individual Sewage Treatment Systems by submitting a resolution of the City Council or authorized governmental official to the Health Authority at least one year in advance of the first of January of any given calendar year, or with approval of the Health Authority.

B. In the event of abandonment of jurisdiction, agree to cooperate with the Health Authority in the transfer of responsibility including timely transfer of all records maintained by the municipality.

**SUBDIVISION 5: ADMINISTRATION BY THE HEALTH AUTHORITY.**

5.1 The Health Authority shall have the following duties and responsibilities:

A. To review all applications for ISTS.
B. To issue all required permits.
C. To conduct construction inspections and to perform all necessary tests to determine its conformance with this Ordinance.
D. To investigate complaints regarding ISTS.
E. To perform compliance inspections and to issue Certificates of Compliance or Notices of Noncompliance where appropriate.
F. To issue Stop Work Orders and Notices of Violation pursuant to this Ordinance.
G. To take complaints to the Municipal or County Attorney for violations of this Ordinance.
H. To maintain proper records for ISTS including site evaluation records, design records including calculations and summaries for all system component sizings and as-builts, complaints on noncompliance, compliance inspections, site evaluations, applications and exhibits, variance requests, issued permits, Certificates of Compliance, and enforcement proceedings.
I. To submit annual reports to the MPCA to demonstrate enforcement of this Ordinance per Chapter 7080.0310.

5.2 Neither the issuance of permits, Certificates of Compliance nor Notices of Noncompliance as requested or issued shall be construed to represent a guarantee or warranty of the system’s operation or effectiveness. Such certificates signify that the system in question is or has been designed and installed in compliance or non-compliance with the provision of these standards and regulations.

**SUBDIVISION 6: PERMITTING.**

6.1 **Required Permits.** A permit from the Health Authority is required before any ISTS in Hennepin County’s jurisdiction is installed, replaced, abandoned, altered, repaired or extended. Installation, replacement, alteration, repair, or extension of an ISTS shall not begin prior to the receipt of a permit from the Health Authority for each specific installation, replacement, alteration, repair or extension pursuant to this Ordinance. Such permits are not transferable as to person or place. Such permits shall expire 12 months after date of issuance. Upon request of an inspector, permits shall be provided by the permittee at the time of inspection.

6.2 **Permits Not Required.** Permits shall not be required for the following activities:

A. Repair or replacement of pumps, floats or other electrical devices of the pump.
B. Repair or replacement of baffles in the septic tank.
C. Installation or repair of inspection pipes and manhole covers.
D. Repair or replacement of the line from the building to the septic tank.
E. Repair or replacement of the line from the septic tank or pump chamber to the distribution box or lines.

6.3 **Permit Application.** All applications for an ISTS permit shall include the following information:

A. Name and address of property owner.
B. Property identification number.
C. Legal description of the property.
D. ISTS Designer name, address, telephone number and State MPCA license number; (or Health Authority qualified employee name and number).
E. ISTS Installer name, address, telephone number and MPCA license number.
F. Site evaluation report on forms approved by the Health Authority.
G. System design with full information including applicable construction information on forms approved by the Health Authority.
H. The location of at least one designated additional soil treatment area that can support a standard soil treatment system on lots created after January 23, 1996.
I. Any other information requested pertinent to the process.

http://www.co.hennepin.mn.us/portal/site/HCIInternet/menuitem.f17356dbe6a54966710ece04b1466498/?...  11/5/2009
J. A certified statement from the person who conducted the work.

6.4 Additional Requirements for the Permitting of Non-Standard Systems. Non-standard systems shall only be permitted if all of the requirements of Minn. Rules, Chapter 7080.0172, 7080.0178 and 7080.0179 and the following:

A. The Health Authority agrees that a Standard System cannot be installed;
B. Reasonable assurance of performance of the system, as determined by the Health Authority, is submitted by the Designer;
C. An operating permit has been approved by the Health Authority; and
D. A water meter is installed to monitor flow.
E. If a non-standard system reduces the vertical separation distance between the bottom of the distribution medium to saturated soil or bedrock from three feet, the following must be met:
   1. A minimum of one foot of unsaturated soil must be present;
   2. Additional nutrient removal may be required by the Health Authority for sensitive environments or high strength wastes;
   3. For one to three feet of unsaturated soil, total fecal coliform levels shall not exceed an average of 2,000 colonies per 100 ml of effluent; and
   4. The performance system must be installed with an alarm device that warns that the system has failed, so untreated sewage cannot reach the distribution medium.

6.41 Operating Permit. The Health Authority shall issue and enforce an operating permit for all non-standard systems. The operating permit shall be valid for twelve months and renewed by the expiration date. The Health Authority shall review all required monitoring data submitted from the previous year and the renewal application before approving any subsequent operating permits. An operating permit shall include:

1. A detailed description of the operation, maintenance, and monitoring necessary to ensure both continued system performance as designed and protection of public health and the environment for the life of the system;
2. A requirement that the person responsible for monitoring notify the Health Authority when monitoring plan requirements are not met; and
3. The signatures of the system designer and owner.

6.42 Monitoring Plans. All sampling methods and analysis techniques shall be performed in accordance with Standard Methods. The monitoring plan shall be developed and approved prior to issuance of a permit and provide the following:

1. The parameters for sampling, sample type, sampling location and frequency for monitoring;
2. The sample parameter compliance limits or boundaries;
3. The reporting frequency, not less than annually;
4. The flow or water usage measurements;
5. The signature of the person responsible for conducting the monitoring and reporting to the Health Authority; and
6. A mitigation plan detailing actions to be taken if the system fails to meet the expectations established by the monitoring plan requirements. The mitigation plan shall detail possible component failures, corrective actions, person responsible for mitigation, and estimated cost of correction.

6.43 The results of the monitoring of a Non-Standard System shall be submitted in accordance with the approved monitoring plan to the Health Authority annually, no later than the expiration date of the operating permit. If monitoring results do not meet the monitoring plan requirements, then the person responsible for conducting the monitoring shall notify the Health Authority within 10 calendar days. Monitoring plans may be modified as necessary with approval by the Health Authority.

6.5 Individuals Constructing Their Own ISTS. A license is not required for an individual who is constructing a Standard System on land that is owned or leased by the individual and functions solely as a dwelling or seasonal dwelling for that individual. The ISTS shall be designed by a Minnesota Pollution Control Agency licensed Designer I or II.

6.6 Application Review and Determination. If after consideration of the application for a permit, the Health Authority determines that the proposed work complies with provision of this Ordinance, the Health Authority shall issue a written permit granting preliminary approval authorizing initiation of the work as proposed. If the Health Authority determines that the proposed work will not comply with the provisions of this Ordinance, the Health Authority shall deny the permit application. The permit application may be revised or corrected and resubmitted to the Health Authority for reconsideration.

6.7 Variances. Variances to wells and water supply lines require approval from the Minnesota Department of Health. The Health Authority may grant variances to the technical standards and criteria of Minnesota Rules, Chapter 7080 or this Ordinance, if the system meets the requirements of part 7080.0172, 7080.0178, 7080.0179 and this Ordinance. All requests for a variance shall be requested in writing to the Health Authority on forms approved by the Health Authority.

SUBDIVISION 7: CONSTRUCTION INSPECTIONS.

7.1 Requirements. Compliance inspections shall be conducted by the Health Authority anytime an ISTS is installed, replaced, altered, repaired, or extended. The installation and construction of the ISTS shall be in accordance with the permit requirements and application design. If any ISTS component is covered before being inspected by the Health Authority, it shall be uncovered if so ordered by the Health Authority. Proposals to alter the permitted construction shall be reviewed and the proposed change accepted by the Health Authority prior to construction. Inspections shall be conducted at least once during the construction that is prior to covering of the ISTS to assure that the system has been constructed per the submitted and approved design.

7.2 Inspector. Compliance inspections for construction, replacement, alteration or repair work on ISTS shall be conducted by the Health Authority.
7.3 Request for Inspection. It shall be the duty of the permittee to notify the Health Authority of the date and time the inspection is requested at least 24 hours (excluding weekend days and holidays) preceding the requested inspection time. If the permittee provides proper notice as described above and the Health Authority does not appear for an inspection within two hours after the time scheduled, the permittee may complete the installation and submit an As-built for the system.

7.4 Access to Premises and Records. Upon the request of the Health Authority, the applicant, owner, permittee or any other person shall allow access at any reasonable time to the affected premises as well as any related records, for the purposes of regulating and enforcing this Ordinance. If entry is refused, the Health Authority shall have recourse to the remedies provided by law to secure entry. No person shall hinder or otherwise interfere with the Health Authority in the performance of their duties and responsibilities pursuant to the enforcement of this Ordinance. Refusal to allow reasonable access to the Health Authority shall be deemed a separate and distinct offense, whether or not any other specific violations are cited.

7.5 Stop Work Orders. Whenever any ISTS work is being done contrary to the provisions of this Ordinance, the Health Authority may order the work stopped by verbal or written notice served upon the installer or the owner of the land. All installation and construction shall cease and desist until subsequent authorization to proceed is received from the Health Authority.

7.6 As-builts. As-builts shall only be accepted for Standard Systems. As-builts shall be submitted to the Health Authority within five (5) working days of completion of the work on the ISTS on forms provided or approved by the Health Authority. The As-built shall include photographs of the system prior to covering and a certified statement that the work was installed in accordance with submitted design and permit conditions and that it was free from defects. If an As-built is not submitted, the Health Authority may require the uncovering of the system for inspection.

7.7 Inspection Reports. A Certificate of Compliance or Notice of Noncompliance shall be prepared by the Health Authority following an inspection or review of As-builts submitted in accordance with Section 7.6. A Certificate of Compliance or Notice of Noncompliance shall include a signed statement by the inspector identifying the type of ISTS inspected and whether the system is in compliance with Minnesota Rules Chapter 7080.0060. A copy of the Certificate of Compliance or Notice of Noncompliance shall be provided to the property owner within 30 days of the compliance inspection and a copy kept on file with the Health Authority.

7.71 Certificates of Compliance issued by the Health Authority for new construction and replacement shall be valid for five (5) years from the date of the compliance inspection or As-built certification unless the Health Authority or licensed inspector identifies the system as an Imminent Public Health Threat.

7.72 Notices of Violation may be issued with Notices of Noncompliance when the Health Authority determines that new construction, replacement or repairs are not in compliance with this Ordinance.

SUBDIVISION 8: EXISTING SYSTEMS.

8.1 Requirements. The Health Authority shall require a compliance inspection of an existing system whenever:

A. In designated Shoreland Management or Wellhead Protection Areas, an application for any type of building or land use permit is made.
B. The Health Authority deems a compliance inspection necessary, including, but not limited to, upon receipt of information of a potential ISTS failure or Imminent Health Threat.
C. An additional bedroom on the property is requested. If a request for an additional bedroom is received between November 1 and April 30, the governing municipality may issue a building permit immediately with the contingent requirement that a compliance inspection of the existing ISTS shall be completed by the following June 1.
D. Any addition or remodel of a licensed food, beverage, or lodging establishment or any Other Establishment where the sewage treatment system's designed flow may be effected.
E. The system is not in a Shoreland Designated Area.
F. The system is not in a Wellhead Protection Area.
G. The system is not serving a food/beverage/lodging facility.

8.2 Inspector. Only the Health Authority or licensed Designer I or Inspector, shall conduct an inspection when a compliance inspection is required for an existing ISTS.

8.3 Existing Systems in Compliance with the Two-foot Rule. An existing system installed before April 1, 1996 shall be considered in compliance with the technical standards of MN Rules 7080 and need not be upgraded if the following conditions exist:

A. The system is not an Imminent Public Health Threat.
B. The system has at least two feet of vertical separation between the bottom of the distribution medium and seasonally saturated soil as indicated by mottling or other indicators.
C. The system is not in a Shoreland Designated Area.
D. The system is not in a Wellhead Protection Area.
E. The system is not serving a food/beverage/lodging facility.

8.4 Inspection Reports. A copy of the Certificate of Compliance or Notice of Noncompliance resulting from a compliance inspection shall be provided to the property owner and the Health Authority within 30 calendar days of inspection.

8.41 Certificates of Compliance issued by a licensed ISTS Inspector for an existing system shall be valid for three (3) years from the date of the compliance inspection unless the Health Authority or licensed inspector identifies the system as an Imminent Public Health Threat.

8.42 A Notice of Noncompliance shall be issued in the following circumstances and the conditions noted in violation of this Ordinance shall be remedied as follows:

A. An ISTS determined to be failing shall be upgraded, replaced, or repaired in accord with Minnesota Rules Chapter 7080.0060, within three (3) years, or its use is discontinued. The Health Authority, at its discretion, may grant an extension of an additional two (2) years.
B. An ISTS posing an imminent threat to public health or safety shall be upgraded, replaced or repaired within 10 months. The Health Authority will give consideration to weather conditions in determining compliance dates. If an ISTS is determined to be a public health nuisance by the Health Authority, the Health Authority may order the owner of the ISTS to cease use immediately and not allow use of the ISTS until it is corrected in accordance with the recommendations of the Health Authority.

**SUBDIVISION 9: VIOLATIONS.**

9.1 **Cause to Issue a Notice of Violation.** Noncompliance with this Ordinance by an applicant, permittee, installer or other person, as determined by the Health Authority, shall constitute a violation.

9.2 **Serving a Notice of Violation.** The Health Authority shall serve, in person or by mail, a Notice of Violation upon any person determined to be in noncompliance with this Ordinance.

9.3 **Contents of a Notice of Violation.** A Notice of Violation shall contain the following:
   
   A. A statement documenting the findings of fact determined through inspections, reinspection or investigation.
   B. A list of specific violation or violations of this Ordinance.
   C. The specific requirements for correction or removal of the specified violation(s).
   D. A mandatory time schedule for correction, removal and compliance with this Ordinance.

9.4 **Notification of MPCA.** The Health Authority shall in accordance with state law notify the MPCA of any inspection, installation, design, construction, alteration or repair of an ISTS by a licensed person or any pumping by a licensed pumper performed in violation of the provisions of this Ordinance.

**SUBDIVISION 10: ADDITIONAL STANDARDS FOR HEALTH AND ENVIRONMENTAL PROTECTION.**

10.1 **Siting of an ISTS.** Notwithstanding any state or federal requirements, the separation distance from an ISTS to a Type 3, 4, 5 or 6 wetland shall be no less than fifty (50) feet.

10.2 **Warrantied Systems.** Warrantied systems, as described in Minn. Stat., Chapter 115.55, subd. 8, are prohibited.

10.3 **Maintenance Report.** The owner of an ISTS or an owner’s agent who measures or removes accumulations in accordance with Minn. Rules 7080.0175B shall submit records to the Health Authority of all pumping activities.

**SUBDIVISION 11: ENFORCEMENT.**

11.1 Any person, firm, corporation or other entity who violates any of the provisions of this Ordinance or who makes any false statement on a Certificate of Compliance, shall be guilty of a misdemeanor, punishable by imprisonment or a fine or both, as defined by law. Each day in violation may constitute a separate violation.

11.2 In the event of a violation of this Ordinance, in addition to other remedies, the County or Municipal Attorney may institute appropriate actions or proceedings to prevent, restrain, correct or abate such violations.

**SUBDIVISION 12: FEES.** The Hennepin County Board shall from time to time establish fees for activities undertaken by the Health Authority pursuant to this Ordinance. Fees shall be due and payable at a time and in a manner to be determined by the Health Authority.

**SUBDIVISION 13: SEVERABILITY.** If a provision or application of this Ordinance is held invalid, that invalidity shall not affect other provisions or applications of this Ordinance.

**SUBDIVISION 14: EFFECTIVE DATE.** This ordinance shall take effect June 5, 2001.

Passed by the Board of County Commissioners of Hennepin County, Minnesota, this 5th day of June, 2001

This ordinance was current when published on this web site. To be certain that it has not been amended, contact the Hennepin County Human Services and Public Health Department at the email address shown on the right.
Appendix B
ISTS 2009 Permit Application Form
A permit must be obtained before commencing any activity requiring a permit under Hennepin County Ordinance No. 19 -- Individual Sewage Treatment Systems Standards. Please check the following that apply and remit application, fee and supporting information to this office. It is the duty of the permittee to notify the Health Authority of the date/time the inspection is needed at least 24 hrs before requested.

(Excluding weekends and holidays)

<table>
<thead>
<tr>
<th>Activity</th>
<th>Permit Fee &amp; Supporting Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>System requiring a monitoring and mitigation plan</td>
<td>$490 - site evaluation and plan</td>
</tr>
<tr>
<td>Pressurized system installed by owner and not a licensed installer</td>
<td>$349 - site evaluation and plan</td>
</tr>
<tr>
<td>Pressurized system installed by licensed installer</td>
<td>$280 - site evaluation and plan</td>
</tr>
<tr>
<td>Non-pressurized system installed by owner and not a licensed installer</td>
<td>$280 - site evaluation and plan</td>
</tr>
<tr>
<td>Non-pressurized system installed by licensed installer</td>
<td>$209 - site evaluation and plan</td>
</tr>
<tr>
<td>Holding tank installation or septic tank replacement</td>
<td>$140 - site location</td>
</tr>
<tr>
<td>Abandonment of a system/tank</td>
<td>$  70 - pumping record and site location</td>
</tr>
<tr>
<td>Septic tank pumping filing fee</td>
<td>$  27 - activity log and site location</td>
</tr>
<tr>
<td>Operating permit renewal fee - Residential</td>
<td>$  67</td>
</tr>
<tr>
<td>Operating permit renewal fee - Business</td>
<td>$135</td>
</tr>
<tr>
<td>Consult for septic developers for newly plotted subdivision</td>
<td>$128 - per lot</td>
</tr>
<tr>
<td>Total Fees</td>
<td></td>
</tr>
</tbody>
</table>

- All permit fees include design/plan review and construction inspections.
- Permits for holding tanks will be issued when no other reasonable system can be installed.
- A permit is required for abandoning an existing system that is not part of the installation of a new/replacement system. All systems must be pumped prior to abandonment.
- When a septic tank is pumped by a licensed pumper, a filing fee and pumping activity log shall be submitted to Hennepin County within 30 days of the activity.

Designer: ____________________________  Address: ____________________________  MPCA License #: _______________

Installer: ____________________________  Address: ____________________________  MPCA License #: _______________

Pumper: ____________________________  Address: ____________________________  MPCA License #: _______________

I certify that the information on the forms provided are accurate and complete.

Applicant's Name: ____________________________  Company Name: ____________________________  Phone: _______________

Signature: ____________________________  Date: _______________

Checks or money orders should be made payable to: HENNEPIN COUNTY TREASURER. Permit expires one year after issuance.

- PLEASE RETURN TO HENNEPIN COUNTY ENVIRONMENTAL HEALTH WITH SUPPORTING INFORMATION.
- A COPY WILL BE RETURNED TO YOU WITH A RECEIPT.

For Office Use Only

Permit # ____________________________
Receipt # ____________________________
Approved by: ____________________________

12/03/2008
Appendix C
Sample Septic System Letter Notification and Mailback Postcard
Dear Property Owner or Current Resident:

Your property or business has been identified as being served by an SSTS or commonly known as a septic system. This letter outlines some basic guidelines for properly maintaining your septic system so it will work properly and last to its designed potential. Enclosed you will also find a helpful brochure and a postcard to return to Hennepin County.

Why should you maintain your Septic system? The first step in proper maintenance is having the tank(s) emptied or pumped. Pumping removes solid particles that settle out of the liquid sewage and become trapped in the septic tank. (Do not add products such as enzymes or starters to your septic system that claim to promote the reduction of buildup or clean your tank. It is the purpose of the septic tank to collect solids and keep them out of the drainfield.) The solid particles must be removed before they build up to a level where they can be washed out into the soil treatment drainfield and plug the soil pores. Plugging of the soil pores prevents the soil from absorbing the liquid sewage. Once the soil can no longer absorb the liquid sewage, the drainfield fails resulting in costly repairs or replacement of the drainfield itself.

How often should you pump your tank? State law (MN Rules, Chapter 7080) requires that septic tanks be measured and/or pumped every three years at a minimum. If you use a garbage disposal device, you will need to pump every year because the device greatly increases the buildup of solids in the tank. Keep in mind that the cost of pumping the tank is small compared to replacing the entire drainfield system.

Who can pump your tank? Only a Minnesota Pollution Control Agency (MPCA) licensed professional SSTS Pumper can safely pump and legally dispose of the sewage from your septic tank. Consult the yellow pages or check the MPCA website in the enclosed brochure for licensed SSTS professionals.

Please complete the enclosed postcard and drop it in the mail. Hennepin County will use the information provided to update our records so we can send you helpful information and reminders to maintain your system in the future. If you have any questions regarding SSTS, please feel free to give us a call at (612) 543-5200.

Sincerely,

Duane Hudson
Environmental Health Supervisor
Property Owner: ________________________________
Street Address: ________________________________
City, State, Zip: __________________________________

Please print the following information and return to our office:

Septic address, if different than owner address.
Street Address: ____________________________________
City, State, Zip: ____________________________________

1. My property has an Individual Sewage Treatment System: □ Yes □ No
   a. If No, what year was municipal sewer provided?
   b. If Yes, what year was your system installed?

2. I have a garbage disposal: □ Yes □ No

3. My tank(s) were pumped by a MPCA licensed pumper on: ________________________________

4. Licensed Pumper Name: ________________________________
   MPCA# ________________________________

Comments

** This postcard requires no postage and our address is pre-addressed. Please call (612) 543-5200 with any questions. Thank you.
Appendix D
Informational Brochures
   1) Homeowner’s Guide
   2) Ordinance Information and Jurisdiction
Hennepin County provides a septic inspection and enforcement program in order to protect ground and surface waters, provide consistent regulation across city boundaries, and to prevent waterborne illnesses. The government ordinance, Hennepin County Ordinance No. 19, went into effect January 1, 2000. Ordinance No. 19 adopts the State of Minnesota Rules governing individual sewage treatment systems, MN Rules Chapter 7080.

Process of Permitting and Installation

1. Contact a MPCA licensed Designer I or II. (A list of all licensed contractors is available on MPCA’s website, listed near the end of this brochure.) Ask for references. Designing and installing a septic system is a major project, so take time to carefully choose a contractor.

2. The Designer will visit your home or lot to conduct soil borings, percolation tests, and other measurements. Always call Gopher State One (1-800-252-1166) to mark utility lines first. The Designer will need information from you about the number of bedrooms, appliances, property lines, well, water usage, future additions or remodels planned, location of any existing systems, etc. Ask questions when the Designer is on site.

3. It is important to mark the boundaries of the proposed site(s) in order to protect the soil from construction site compaction.

4. Once the final system design is finished, you or the contractor must make application to Hennepin County for a permit and pay the appropriate fee. Permit applications can be obtained from our office in Hopkins and most of the city offices within our jurisdiction. You can call us at (952) 351-5200 to have one fixed or mailed to you.

5. After Hennepin County has the permit application and a copy of the design, a Hennepin County inspector will visit your home or lot to verify setbacks, soils, and other information prior to approving the permit.

6. Once the permit is approved, a signed copy of the approved permit will be mailed or faxed to the applicant.

7. A MPCA licensed contractor can then install the system according to the approved design. Making sure to contact Hennepin County at least 24 hours in advance for an installation inspection. Inspections are not available on weekends or observed County holidays.

8. Once the system is installed and inspected, Hennepin County will send copies of the inspection report, permit, system design, a certificate of compliance, and the Septic System Owner’s Guide to the owner. Take time to read through this information and file it with your important papers. You will need this information in the future.
Septic system maintenance

Replacing a septic system is a major investment. If properly installed and maintained, it could last as long as 25 years, or if abused, only a few months. Here are some tips on care and maintenance of septic systems whether new or existing:

1. Hire a MPCA licensed septic pumper (from the MPCA list) to remove all liquid and solids at least every two to three years. If you have a garbage disposal, have the tank(s) pumped every year. Tanks must be pumped through the maintenance cover, not through the 4" inspection pipes.

2. If your system has an effluent filter, clean it at least every six months.

3. Avoid using anti-bacterial soaps and detergents. Use a minimal amount of bleach and avoid powder detergents.

4. Never use septic tank additives or starter bacteria/enzymes. These are a waste of money and can be very harmful to your system and the environment.

5. Never dispose of toxic chemicals (paints, thinners, strippers, automotive fluids, etc.) into the septic system.

6. Do not flush down the toilet any of these items: paper towels, diapers, feminine products, bandages, cigarette butts.

7. Spread out loads of laundry over the week to avoid overloading the system.

8. Do not drive anything bigger than a lawn mower over the drainfield of the system. Avoid parking or piling objects (wood for example) on the drainfield.

9. Maintain a mowed grass cover on the system to protect it from erosion and freezing. Do not remove snow cover from the system.

10. Install water conserving fixtures and appliances. The recharge water from a water softener or water filtration system (reverse osmosis) should not be discharged to the septic system since it does not require treatment.

Jurisdiction

Hennepin County provides a permitting and inspection program for those cities that have officially delegated their program to the county. In these cities we permit both residential and commercial septic systems. These cities currently include:

- Brooklyn Center
- Brooklyn Park
- Champlin
- Crystal
- Deephaven
- Edina
- Excelsior
- Golden Valley
- Greenwood
- Long Lake
- Maple Plain
- Medicine Lake
- Minneapolis
- MSP Airport
- Minnetonka
- Minnetonka Beach
- Minnetrista
- Mound
- Osseo
- Plymouth
- Robbinsdale
- Rockford
- Shorewood
- St. Anthony
- St. Bonifacius
- Spring Park
- Tonka Bay

For information on septic systems in any city not listed above, please contact that city’s building inspection department.

Websites

To view Hennepin County Ordinance No. 19, visit the Hennepin County website at: www.co.hennepin.mn.us. Click on Documents, then click on Ordinances, and then click on #19 Individual Sewage Treatment Systems Standards for Hennepin County.

To view the Minnesota Pollution Control Agency’s State Rules regarding Individual Sewage Treatment Systems, visit the MN Office of the Revisor of Statutes website at: www.revisor.leg.state.mn.us. Click on Laws of Statutes, and Rules, and under MN Rules click on retrieve an entire chapter. In the box type in 7080.

To view a list of all licensed septic contractors in the state or for other information on septic systems, visit the Minnesota Pollution Control Agency’s website at: www.pca.state.mn.us. Scroll down and click on Programs, then click on Individual Sewage Treatment Systems (ISTS), and you can view fact sheets and a complete list of licensed contractors organized by county.

Another useful website is the University of Minnesota Extension Service at: www.bae.umn.edu/~septic/.

The Minnesota On-site Sewage Treatment Contractor’s Association (MOSTCA) is also a good source of information, website: www.mostca.com.

For more information on septic systems and Hennepin County’s program, contact our office at:

1011 First Street South, Suite 215, Hopkins, MN  55343
or call 952-351-5200, fax 952-351-5222
Email: epi-envhlth@co.hennepin.mn.us
Hennepin County provides a septic inspection and enforcement program in order to protect ground and surface waters, provide consistent regulation across city boundaries, and to prevent waterborne illness. The government ordinance, Hennepin County Ordinance No. 19, went into effect January 1, 2000. Ordinance No. 19 adopts the State of Minnesota Rules governing individual sewage treatment systems, MN Rules Chapter 7080.

Summary of Ordinance Number 19
Adopting MN Rules, Chapter 7080:

- There is no Hennepin County requirement for inspection of the septic system for property transfer in Hennepin County’s ordinance. State law requires that information regarding the septic system must be properly disclosed to the buyer. A well-informed buyer will want a thorough inspection and many lending agencies require a compliance inspection on the existing system before providing a mortgage.

- Hennepin County inspects new septic systems, repairs on existing septic systems, and those existing septic systems that are the subject of a complaint investigation. Hennepin County does not perform compliance inspections for existing septic systems. There are many Inspectors licensed by the Minnesota Pollution Control Agency and a list is available on their website. (Websites are listed at end of brochure.)

- Building permits are subject to septic permit approval or compliance inspection; all building permits for new commercial or new residential structures, any permits for bedroom(s) additions, any additions/remodeling of commercial facilities where water usage will be increased, any permits within designated shoreland areas, and any permits within designated wellhead protection areas.

- Existing systems, built before January 23, 1996, are considered in compliance if two feet of soil separation is provided and it is not classified as an Imminent Health Threat* (excludes shoreland areas; food, beverage, lodging facilities; wellhead protection areas; new construction).

- Certificates of Compliance for existing systems remain valid for three years, unless identified as an Imminent Health Threat.*

- Certificates of Compliance for new systems remain valid for five years, unless identified as an Imminent Health Threat.*

- Systems receiving a Notice of Noncompliance, that are not an Imminent Health Threat*, have a three year upgrade requirement.

- There is a general setback of 50 feet to a wetland.

- Warrantied systems (MN Statutes Chapter 115.55) are prohibited.
Hennepin County provides a permitting and inspection program for those cities that have officially delegated their program to the county. In these cities we permit both residential and commercial septic systems. These cities currently include:

- Brooklyn Center
- Minneapolis
- Brooklyn Park
- Minnetonka
- Champlin
- Osseo
- Eden Prairie
- Crystal
- Bremen
- Deephaven
- Corcoran
- Lakeville
- Edina
- Plymouth
- Excelsior
- Mound
- Golden Valley
- Shorewood
- Maple Plain
- Maple Grove
- New Hope
- Deerfield
- Richfield
- Rogers
- St. Louis Park
- Wayzata
- Woodland

For specific information on the Hennepin County permitting process, see the Hennepin County homeowner brochure.

For information on septic systems in any city not in the prior list, please contact that city’s building inspection department. Those cities are:

- Bloomington 952-563-8934
- Dayton 763-427-4589
- Eden Prairie 952-949-8300
- Greenfield 763-477-6464
- Hanover 763-497-3777
- Hassan Twp 763-428-4100
- Hopkins 952-935-8474
- Independence 763-479-0527
- Loretto 763-479-4305
- Maple Grove 763-494-6000
- Medina 763-473-4643
- New Hope 763-531-5100
- Orono 952-249-4600
- Richfield 612-861-9700
- Rogers 763-428-2253
- St. Louis Park 952-924-2500
- Wayzata 952-404-5302
- Woodland 952-474-4755

To view the Minnesota Pollution Control Agency’s State Rules regarding Individual Sewage Treatment Systems, visit the MN Office of the Revisor of Statutes website at: www.revisor.leg.state.mn.us. Click on Laws Statutes, and Rules, and under MN Rules click on retrieve an entire chapter. In the box type in 7080.

Another useful website is the University of Minnesota Extension Service at: www.extension.umn.edu/environment/ then select “sewage treatment.”

The Minnesota On-site Water Association (MOWA) is also a good source of information. Their website: www.mowa-mn.com.

For more information on septic systems and Hennepin County’s program, contact our office at:

1011 First Street South, Suite 215, Hopkins, MN 55343
or call 612-543-5200, fax 952-351-5222
Email: epi-envhlth@co.hennepin.mn.us
Section 3
Regional Park Systems

Background

In suburban Hennepin County, the regional park system is owned, managed, and operated by a sister agency – the Three Rivers Regional Park District. Three Rivers Parks owns and operates 6 large Regional Park Reserves, 10 Regional Parks, and over 100 miles of Regional Trails.

Three Rivers is recognized by the Metropolitan Council as one of ten Regional Park Implementing Agencies, and the Metropolitan council reviews, approves and helps fund development of the regional parks and trails in suburban Hennepin County through Three Rivers.

Within the City of Minneapolis, the Minneapolis Park and Recreation Board has the planning and operational responsibilities for regional parks and trails.

A significant level of cooperation and collaboration occurs between Hennepin County and both park agencies - primarily in the area of bicycle / pedestrian trails, but also regarding park access roads in the case of Three Rivers.

Although the focus for Hennepin County bicycle and pedestrian facilities tends to be directed toward a transportation use, it is recognized that many walkway and trail facilities also serve a recreational purpose. It is also recognized that there are health and active living interests in walking and biking as well.

The Hennepin County Bicycle Transportation Plan discussed in the 2030 HC-TSP (Section 5) integrates some trail facilities managed by the park districts where these trails also serve a regional transportation purpose.
Hennepin County has collaborated with the Minneapolis Park & Recreation Board on a number of trails. Some recent examples include:

- Design coordination and funding assistance for the Ford Bridge Trail Connection linking to the West River Road Trail (2004).
- Development of a grade separated trail crossing under the Ford Bridge to the Wabun Picnic area of Minnehaha Park (2007).
- Funding assistance for the upgrading of trail crossing connections to West River Road (2009).

The accompanying map below illustrates the Minneapolis parks and trail systems.

Hennepin County maintains an active partnership with Three Rivers for development of the regional network of trails throughout Hennepin County. Four heavily used regional trails are located along Hennepin County Regional Railroad Authority corridors, dating back to the mid 1980’s. In 1995, the County partnered with Three Rivers and several local communities to develop a trail plan for the western portion of Hennepin County (known as the Integrated Park Trail System). The county’s Bicycle Transportation Plan developed in 1995-97 and adopted by the Board of Commissioners in late 1996, incorporated the regional trail aspects of the Integrated Park Trail System.

Three Rivers Parks and Hennepin County have continued to collaborate on developing trail systems, especially for those segments that help to connect between the various regional parks. Some recent trail projects that Hennepin County has provided funding assistance include:

- CSAH-10 (Bass Lake Road) Tunnel Connections (2006)
- Dakota Rail Trail Bridge over CSAH-92 (2009)
- Lake Independence Regional Trail (2009)

As mentioned in the 2030 HC-TSP, the phenomenal growth in trail usage has highlighted the crossing problems where the regional trails cross busy roadways. In a number of cases, Hennepin County and Three Rivers Parks have worked together to improve these crossings by grade separating the trail, relocating the trail to an adjacent intersection with signal traffic control, or installing refuge islands and modifying the design of the crossing.

The accompanying map below illustrates the status of current planning for regional trails by Three Rivers.
Minneapolis Park and Recreation Board

Park System Highlights

This map highlights many of the park system’s winter attractions. Additional information about amenities available at each park is available at www.minneapolisparks.org. A variety of park maps and maps highlighting the Grand Rounds parkways and paved paths are available online. A printed Grand Rounds map is also available by calling 612-230-6460.
Section 4
Surface Water Management

Introduction

Hennepin County’s water resources – lakes, streams, ground water and wetlands – are an important component to our quality of life and the overall health of our environment. Hennepin County has 200 lakes, 640 miles of streams and more than 45,000 acres of wetlands.

Protecting our water resources is not only important to human health; it is vital to preserving wildlife habitat and providing economic and recreational value. Many water pollutants come from human activities on the land. Over the last few decades, state and federal regulations have limited “point source” discharges of waste water and sewage pipes into our waterways. Today the majority of our water pollution comes from “nonpoint” sources – runoff from yards, roads and fields.

As more of our land is developed, there is an increase in impervious surfaces. When it rains, much of the storm water that falls on these hard surfaces runs off instead of soaking into the soil. As it travels, storm water picks up pollutants, like sediments, fertilizers, grass clippings, pet droppings, oil and pesticides, and delivers them directly into storm sewers. Eventually, some of this water ends up in our lakes, streams or rivers without filtration or treatment. By properly managing our yards, roads and fields, we each play an important role in preventing pollution of our water resources.

Hennepin County Lakes – Impaired Waters List

The number of lakes on the impaired waters list is growing due to the increased availability of water quality data and a change in the types of pollutants for which lakes may be listed. Over time, improved protection and restoration efforts should improve water quality, allowing lakes to be removed from the list.

The federal CleanWater Act requires states to publish an updated list of lakes that are not meeting their designated uses because of excess pollutants every two years. The list, known as the 303(d) list, is based on violations of water quality. Water quality in lakes is affected by the amount of pollutants entering the lake, lake size and depth. The amount of pollutants depends on the size of the watershed, the types of land use occurring in the watershed and annual precipitation. Common pollutants are plant nutrients and fertilizer, which contains phosphorus and nitrogen; sediment; road salt; oil; and heavy metals. Other pollutants of special concern are
persistent bioaccumulative toxics (PBTs), which are highly toxic, longlasting substances that can build up in the food chain to levels that are harmful to humans and wildlife. These toxics are released through the production of energy; motor vehicle use, and other air emissions; or when products like electronics, pesticides and other consumer and industrial products are disposed of improperly.

The primary tool for addressing impaired waters is a pollution reduction plan called a Total Maximum Daily Load (TMDL). A TMDL is the maximum amount of a pollutant that a water body can receive without violating water quality standards. The TMDL process identifies all sources of the pollutant and determines how much each source must reduce its contribution in order to meet the quality standard. Using this information, a pollution reduction plan is developed. Once the Environmental Protection Agency (EPA) approves a completed TMDL plan, the city or watershed management organization implements the plan.

Hennepin County’s Role

County staff serve on technical advisory committees regarding the development of Total Maximum Daily Load (TMDL) plans for impaired waters. Currently, there are six approved TMDLs in Hennepin County, one draft TMDL on public notice and 13 TMDLs in progress (see table below).
## Status of TMDL Plans

### Approved TMDLs in Hennepin County

<table>
<thead>
<tr>
<th>TMDL Projects</th>
<th>TMDL Approved by U.S. EPA</th>
<th>Implementation Plan Approved by MPCA</th>
<th>Major Basin</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lower Minnesota River TMDL: Low Dissolved Oxygen</td>
<td>September 28, 2004</td>
<td>February 2006</td>
<td>Minnesota River Basin</td>
</tr>
<tr>
<td>Shingle Creek TMDL: Chloride</td>
<td>February 14, 2007</td>
<td>March 5, 2007</td>
<td>Upper Mississippi River Basin</td>
</tr>
<tr>
<td>Lake Independence TMDL: Excess Nutrients</td>
<td>February 23, 2007</td>
<td>March 2007</td>
<td>Upper Mississippi River Basin</td>
</tr>
<tr>
<td>Statewide TMDL: Mercury Pollutant Reduction Plan</td>
<td>March 27, 2007</td>
<td>TBD</td>
<td>Statewide</td>
</tr>
<tr>
<td>Twin and Ryan Lakes TMDL: Excess Nutrients</td>
<td>November 9, 2007</td>
<td>November 13, 2007</td>
<td>Upper Mississippi River Basin</td>
</tr>
<tr>
<td>Crystal Lake (Metro): Excess Nutrients</td>
<td>March 25, 2009</td>
<td>July 7, 2009</td>
<td>Upper Mississippi River Basin</td>
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</table>

### Draft/Public Noticed TMDLs in Hennepin County

<table>
<thead>
<tr>
<th>TMDL Projects</th>
<th>TMDL Approved by U.S. EPA</th>
<th>Implementation Plan Approved by MPCA</th>
<th>Major Basin</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cedar Island, Pike and Eagle Lakes TMDL: Excess Nutrients</td>
<td>-</td>
<td>-</td>
<td>Upper Mississippi River Basin</td>
</tr>
</tbody>
</table>

### In Progress TMDLs in Hennepin County

<table>
<thead>
<tr>
<th>TMDL Projects</th>
<th>TMDL Approved by U.S. EPA</th>
<th>Implementation Plan Approved by MPCA</th>
<th>Major Basin</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bluff Creek: Turbidity and Impaired Fish Biota (Metro)</td>
<td>-</td>
<td>-</td>
<td>Upper Mississippi River Basin</td>
</tr>
<tr>
<td>Lake Crystal: Excess Nutrients</td>
<td>-</td>
<td>-</td>
<td>Upper Mississippi River Basin</td>
</tr>
<tr>
<td>Minnesota River: Turbidity</td>
<td>-</td>
<td>-</td>
<td>Minnesota River Basin</td>
</tr>
<tr>
<td>Ninemile Creek: Impaired Biota, Turbidity &amp; Chloride</td>
<td>-</td>
<td>-</td>
<td>Upper Mississippi River Basin</td>
</tr>
<tr>
<td>Lake Sarah: Excess Nutrients (Metro)</td>
<td>-</td>
<td>-</td>
<td>Upper Mississippi River Basin</td>
</tr>
<tr>
<td>Lower Crow River (North Fork): multiple impairments</td>
<td>-</td>
<td>-</td>
<td>Upper Mississippi River Basin</td>
</tr>
<tr>
<td>Medicine Lake: Excessive Nutrients (Metro)</td>
<td>-</td>
<td>-</td>
<td>Upper Mississippi River Basin</td>
</tr>
<tr>
<td>Minnehaha Creek Watershed Lakes: Excess Nutrients (Metro)</td>
<td>-</td>
<td>-</td>
<td>Upper Mississippi River Basin</td>
</tr>
<tr>
<td>Shingle and Bass Creeks: Impaired Biota &amp; Dissolved Oxygen (Metro)</td>
<td>-</td>
<td>-</td>
<td>Upper Mississippi River Basin</td>
</tr>
<tr>
<td>Shingle Creek Watershed: Lake TMDLs (Metro) - Magna Lake: Excess Nutrients</td>
<td>-</td>
<td>-</td>
<td>Upper Mississippi River Basin</td>
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<tr>
<td>Sweeney Lake: Phosphorus (Metro)</td>
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<td>-</td>
<td>Upper Mississippi River Basin</td>
</tr>
<tr>
<td>Upper Mississippi River: Bacteria</td>
<td>-</td>
<td>-</td>
<td>Upper Mississippi River Basin</td>
</tr>
<tr>
<td>Wirth Lake: Excess Nutrients (Metro)</td>
<td>-</td>
<td>-</td>
<td>Upper Mississippi River Basin</td>
</tr>
</tbody>
</table>
The Clean Water Legacy Act is a state program that provides funding to help implement TMDL plans and strategies to reduce the amount of pollutants entering impaired waters. The county works with state agencies and local governments to help implement this program in Hennepin County.

Many lakes have shown an improvement compared to 30 years ago. The water quality of approximately 90 percent of Hennepin County’s lakes is improving or has remained consistent from year to year. Stream quality has declined; however, streams have a high degree of variability from year to year, making long-term trends difficult to identify.

The lake quality report card was developed by the Metropolitan Council following a 1989 survey of water quality data. The stream quality report card was developed in 2001 by Hennepin County Environmental Services and the Hennepin Conservation District.

These report cards allow the county to give the water resource an annual grade, compare it with other metro water resources and analyze trends when long term data is available. The report card system creates a letter grade, which helps the general public better understand the highly technical information. The tables on the following page illustrate the grading scales and measure descriptions.

**Lake Report Card**

The lake report card represents percentile ranges for three water quality indicators—the summertime average values for total phosphorus, chlorophyll A and water clarity. These three parameters are averaged to obtain an annual grade.

Water quality in lakes is affected by the amount of pollutants entering the lake, lake size and depth. The amount of pollutants depends on the size of the watershed, the type of land use occurring in the watershed and annual precipitation. Common pollutants are sediments, fertilizer, grass clippings, pet droppings, road salt, oil and persistent bioaccumulative toxics (PBTs), such as mercury.

**Stream Report Card**

The stream report card uses data obtained through the Hennepin County River Watch Program. Professionals and high school students assess the health of our local streams by monitoring bottom-dwelling spineless organisms. These organisms live all or part of their life on streambeds, and the specific species found are an indicator of the stream’s water quality.
## Grading Scales and Descriptions of Measures

### LAKES

<table>
<thead>
<tr>
<th>Metropolitan Council Ranking</th>
<th>Hennepin County Results (Avg. Grades 57 sites)</th>
<th>Hennepin County Results - 2003 Grades (40 sites)</th>
<th>General Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>A Top 10%</td>
<td>5.2%</td>
<td>10.4%</td>
<td>Crystal clear, beautiful. These lakes are exceptional and are enjoyed recreationally without question or hesitation. No impingement.</td>
</tr>
<tr>
<td>B 10-30%</td>
<td>15.0%</td>
<td>10.2%</td>
<td>These lakes generally have good water quality, but algae may limit swimming, particularly toward the end of summer. Some impingement.</td>
</tr>
<tr>
<td>C 30-70%</td>
<td>47.4%</td>
<td>40.0%</td>
<td>Average quality. Swimming, boating and fishing may be undesirable relatively early in the season. Algae blooms occasionally. Impaired.</td>
</tr>
<tr>
<td>D 10-30%</td>
<td>29.0%</td>
<td>30.5%</td>
<td>These lakes have severe algae problems. People are generally not interested in recreation on these lakes. Severely impaired.</td>
</tr>
<tr>
<td>F &lt; 10%</td>
<td>1.7%</td>
<td>0.0%</td>
<td>Not enjoyable. Such lakes would have severe limitations to recreational use. Very limited uses.</td>
</tr>
</tbody>
</table>

#### Three Factors in the Grade

A lake’s annual grade is determined using the following three water quality measures:

- **TP Total Phosphorus**: The total phosphorus measure. Increased phosphorus relates closely to increased algae, frequency of algae blooms and the increased quantity of blue-green algae.

- **Chlorophyll-a**: Chlorophyll-a or the green pigment in plants. Chlorophyll-a is essential to photosynthesis. A measure of its presence in water estimates algae abundance.

- **Secchi Disk**: The Secchi disk transparency. The lower the Secchi disk is visible, the clearer the water appears.

### STREAMS

<table>
<thead>
<tr>
<th>Report Card Grade</th>
<th>Hennepin County Results (Avg. Grades - 18 sites)</th>
<th>Hennepin County Results (2003 Grades - 18 sites)</th>
<th>Biotic Indices</th>
</tr>
</thead>
</table>
| A                 | 0.05%                                         | 0.0%                                            | Family Biotic Index = 0.00 - 4.00  \
EPT = 9.0 - 12  
Number of Families = 12.0 - 15 |
| B                 | 22.2%                                         | 22.2%                                           | Family Biotic Index = 4.01 - 5.75  \
EPT = 5.0 - 6.0  
Number of Families = 9.1 - 13.9 |
| C                 | 56.7%                                         | 44.5%                                           | Family Biotic Index = 5.76 - 6.50  \
EPT = 3.0 - 5.9  
Number of Families = 6.0 - 9.0 |
| D                 | 11.1%                                         | 33.3%                                           | Family Biotic Index = >6.50  \
EPT = <3.0  
Number of Families = >6.0 |

#### Three Factors in the Grade

A stream’s annual grade is determined using the following three water quality measures:

- **Family Biotic Index (FBI)**: Summarizes the various pollution tolerance values of all families in a sample. FBI ranges from 0-10, with lower values reflecting higher water quality.

- **EPT**: The number of mayfly, stonefly and caddisfly families in the sample. These families represent the pollution intolerant insects. A high EPT score reflects better water quality.

- **Number of Families**: The number of different benthic macroinvertebrate families found at the site. In general, more diversity is better.
Water quality in streams is affected by size of the watershed, stream gradient, the types of land use occurring in the watershed and annual precipitation. The data demonstrates that the quality of county streams varies greatly from year to year. The variability results from annual weather changes, such as precipitation amounts and intensity, and the ability of our urban streams to assimilate to these changing conditions.

The percentage of Hennepin County lakes receiving a grade of B or higher increased to 36% in 2005. The percentage of lakes receiving a grade of B or higher has increased for three consecutive years. The percentage of Hennepin County streams receiving a grade of B or higher declined to 18% in 2005.

Appendix A illustrates the environmental indicators report card for specific lake and stream sampling areas of Hennepin County. The data presented is a consolidation and analysis of data obtained from a number of organizations:

- Bassett Creek Watershed Management Organization
- Elm Creek Watershed Management Commission
- Nine Mile Creek Watershed District
- Minnehaha Creek Watershed District
- Pioneer-Sarah Creek Watershed Management Commission
- Riley/Purgatory Watershed District
- Shingle Creek Watershed Management
- Hennepin Conservation District
- Metropolitan Council
- Three Rivers Park District
Hennepin County’s Role

Watershed districts, joint-powers watershed management organizations and cities have the primary responsibility for surface water management in Hennepin County. There are twelve watershed organizations in Hennepin County:

- Bassett Creek Watershed Management Commission
- Elm Creek Watershed Management Commission
- Lower Minnesota River Watershed District
- Minnehaha Creek Watershed District
- Mississippi River Watershed Management Organization
- Nine Mile Creek Watershed District
- Pioneer-Sarah Creek Watershed Management Commission
- Rice Creek Watershed District
- Richfield-Bloomington Watershed Management Commission
- Riley-Purgatory-Bluff Creek Watershed District
- Shingle Creek Watershed Management Commission
- West Mississippi Watershed Management Commission

Hennepin County provides technical assistance to watershed organizations and Hennepin County staff serve as the principal technical advisors to two watershed management organizations (Elm Watershed Management Commission and Pioneer-Sarah Creek Watershed Management Commission). The Hennepin County Board of Commissioners, through its open appointment process, also appoints managers to serve on the governing boards of watershed districts.

Hennepin County also manages volunteer wetland and stream monitoring programs dedicated to obtaining quality data and promoting wetland and stream stewardship. The county provides financial and technical assistance to landowners and local governments to implement best management practices, which preserve and restore critical habitats, reduce erosion, and protect and improve water quality. We also provide cost-share grants to local governments and individuals to protect natural resources and ground water quality through the Natural Resource Incentives for Critical Habitat Program.

Municipal Separate Storm Sewer System (MS4)

Hennepin County is considered a small MS4 and is required to apply for a general permit that is issued by the Minnesota Pollution Control Agency under Phase II of the National Pollutant Discharge Elimination System (NPDES). MS4 stands for Municipal Separate Sewer Systems and encompasses any conveyance or system of conveyances that is:
• Owned by a state, city, town, village, or other public entity that discharges to water of the U.S.;
• Designed or used to collect or convey stormwater (including storm drains, pipes, ditches, etc.);
• Not a combined sewer; and
• Not part of a Publically Owned Treatment Works (sewage treatment plant).

**Stormwater Pollution Prevention Plan (SWPPP)**

One of the requirements of the NPDES is that the County must have and implement a Stormwater Pollution Prevention Plan (SWPPP). A SWPPP contains 5 Minimum Control Measures, as listed:

- Public Education/Outreach and Participation/Involvement
- Illicit Discharge Detection and Elimination
- Construction Site Runoff Control
- Post-Construction Runoff Control
- Pollution Prevention/Good Housekeeping

A SWPPP is rewritten every 5 years and updated annually.

As noted above, under 303(d) of the Clean Water Act, states, territories and authorized tribes are required to develop lists of impaired waters. As part of the listing process, a TMDL report is compiled for a body of water.

During the reporting process, reduction allocations are determined for all stakeholders within the watershed of the impeded water body. After a report is completed, it is approved by the MPCA and the EPA before implementation. After a report is implemented, all the stakeholders have 18 months to incorporate the reduction allocations into their SWPPP and report to the MPCA what actions are currently taken and what actions are proposed to meet the allocation.
Appendix A
Detailed Water Quality Data Maps
Section 5
2030 Hennepin County Transportation Systems Plan (2030 HC-TSP)

Note: This portion of the 2030 Comprehensive Plan is an overview of the transportation plan. The full document of the 2030 HC-TSP is bound under a separate cover.

What is the 2030 HC-TSP? The 2030 HC-TSP represents an on-going transportation planning effort that:

- Articulates a transportation vision
- Updates previous planning work
- Provides guidance for future transportation decisions
- Is a multi-modal plan that addresses the needs of transportation users and modes

The purpose of the Hennepin County Transportation Systems Plan (2030 HC-TSP) is to set the stage for future transportation investments that will keep the county competitive in attracting businesses and future work force, and will sustain a high quality of life for county residents into the future.

Why Update the HC-TSP? State Statutes Chapter 473 grants authority to the Metropolitan Council to plan for the Twin Cities metropolitan area. As part of their responsibilities granted by the state, the Metro Council requires all local comprehensive plans to be updated on a 10-year cycle. Besides this mandate, there are other reasons to update the HC-TSP:

- Economic changes, particularly related to the cost of transportation, are influencing changes in travel patterns and mode choices in the county.
- Demographic changes, economic changes, and public investment policy changes are influencing land development patterns in the county and this, in turn, changes travel patterns and mode choices.
- Transportation infrastructure in the county is aging, particularly in developed areas of the county.
- Several regional and statewide plans have been adopted
that impact transportation facilities in the county.

- New county policies and plans have been implemented including the Complete Streets policy, the Active Living policy, the Cool County initiative, the ITS Strategic Plan, the Sustainable Communities Initiative, and the Corridors of Opportunity initiative.
- There has been a significant change in federal policy as demonstrated by the U.S. Department of Housing and Urban Development (HUD), the Department of Transportation (DOT) and the Environmental Protection Agency (EPA) Partnership for Sustainable Communities.
- Periodic review of policies and practices is needed.
- Uncertain revenue sources and increasing costs continually require effective planning.

**Transportation Vision**

Hennepin County is a great place to live and work with diverse land use patterns and close proximity to employment centers. The county’s transportation vision is to sustain and enhance the economic competitiveness of Hennepin County and the quality of life of its residents by enhancing transportation mobility, improving transportation safety, and increasing transportation choice. These efforts will focus on marshalling multiagency resources along with private sector funds to shape development and transportation improvements (place-making) to enhance competitiveness and sustainability within the county.

**Goals and Strategies**

**Goal 1 – Preserve and modernize the existing transportation system**

- Increase preservation/modernization activities to raise quality of pavements with special emphasis inside the I-494/I-694 ring where a higher percentage of poor pavements exist.
- Integrate where feasible and practical, bicycle and pedestrian accommodations as part of rehabilitation/modernization improvement projects.
- As part of reconstruction efforts, identify and implement areas where bicycle and pedestrian accommodations can be effectively integrated into the design.
- Identify traffic signal needs that are beyond life-cycle and develop a program for replacement/upgrades.
• Based on annual bridge inspection programs, identify structurally deficient bridges and timing for rehabilitation/replacement.
• Consider implementation of Intelligent Transportation Systems (ITS) to efficiently manage the system and improve safety as well as communicate traveler information to users.

Goal 2 – Improve safety for all transportation users

• Annually review crash rate information for roadway segments and intersections to determine spot locations and/or segments that are problematic. Identify lower cost/high benefit solutions that could be pursued to address issues and/or incorporate potential solutions into ongoing program and/or maintenance activities.
• Annually review pedestrian and bicycle crash information to determine conditions that are problematic. Work with local agencies, bicycle community, and private partners to implement solutions.
• Proactively work with local and regional partners as well as the private sector to incorporate safety into all transportation designs that impact county facilities.
• Work with other partner agencies to establish a community education program that better educates pedestrians, bicyclists, and motorists on how to share the road safely.
• Continue Spot Safety Evaluation in coordination with operations and maintenance actions.

Goal 3 – Provide mobility and choice to meet the diversity of transportation needs as well as to support health objectives throughout the county

Transit:
• Move environmental processes forward on major transit corridors, including Southwest LRT, Bottineau Transitway, and Downtown Minneapolis Transportation Interchange.
• Develop long-term funding strategy for major transit corridors.
• Work with local communities on station planning, park and rides and land use.
• Work with Minnesota Department of Transportation (Mn/DOT) and other partners to coordinate improvements on connecting facilities.
• Consider development of a Hennepin County Transit Strategy document
Bicycle:
- Review and revise the bicycle system plan including a complete walkway system map.
- Integrate bicycle facilities into roadway projects in accordance with the county bikeway plan and Complete Streets policies.
- Incrementally address bikeway gaps.
- Integrate bicycle parking and other amenities into transit stations.
- Ensure that bicycle connections are made along other key routes to feed transit stations.
- Develop a comprehensive, county-wide strategy for improving bicycle access to schools.
- Partner with cities and agencies to make off-road trails available to bicyclists 365 days a year.

Pedestrian:
- Develop a pedestrian system plan that integrates city plans and a complete walkway system map.
- Ensure that pedestrian accommodations are integrated into urban roadway reconstruction/rehabilitation projects.
- Ensure that pedestrian connections are integrated into transit stations and bus stops and along key routes that feed transit stations.
- Incorporate the Americans with Disabilities Act (ADA) Transition Plan strategies in roadway reconstruction/rehabilitation projects.
- Develop a comprehensive, county-wide strategy for improving pedestrian access to schools.

Roadway:
- Integrate transit advantages and transit priority into traffic operations where appropriate.
- Work with local agencies and private sector to identify roadway and bridge improvements needed to accommodate growth/development.
- Work with local agencies and Mn/DOT to coordinate improvements on connecting facilities.
- Identify chronic congestion and safety problems and identify, develop, and implement mitigation strategies to address these issues. Work with local partners and other stakeholders to obtain right of way to accommodate future transportation improvements.
Goal 4 – Increase spatial efficiency of system

- Identify opportunities such as the Corridors of Opportunity program that is collaboratively sponsored by Living Cities and HUD’s Sustainable Communities Program. The work includes planning and engaging citizens to create distinctive places; strengthen local assets; increase transit ridership; and expand access to jobs, affordable housing, and essential services for residents of all incomes and backgrounds.

- Fully employ and maximize the results of TOD, affordable housing, and brownfield redevelopment through incentive-based funding programs, TOD, Affordable Housing Incentive Fund (AHIF), and the Environmental Response Fund (ERF), respectively.

- Collaborate with partners to leverage public and private investments to achieve housing, transportation, economic development, and environmental goals.

Goal 5 – Reduce the county’s environmental footprint

- Encourage Travel Demand Management (TDM) for employees including support for telework, biking, walking, and transit (subsidies for transit passes), and linking employees with carpooling and vanpooling.

- Encourage TOD, support for expansion of transit services that feed major transit corridors, and/or where it can be demonstrated that investments will provide significant transit benefits.

- Work with local partners and other stakeholders to encourage land use patterns that promote alternative modes of travel (reduce reliance on vehicles).

- Incorporate within highway and bridge designs an overall footprint that minimizes hard surfaces while meeting necessary safety and mobility requirements.

Transportation Evaluation

The metrics that will be used to evaluate progress toward meeting the above goals are shown in Table 1. It should be noted that additional future work will be done on metrics to insure that targets are realistic and metrics are measurable and appropriate.
### Table 1: Hennepin County Transportation Goals and Metrics

<table>
<thead>
<tr>
<th>Goal</th>
<th>Evaluation Item</th>
<th>Measure</th>
<th>Target by 2030</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Preserve and modernize the existing transportation system</td>
<td>Pavement</td>
<td>Pavement Serviceability (PSR)</td>
<td>Two-thirds of pavements with serviceability rating (PSR) &gt; 3.0; No more than 5 percent of pavements with (PSR) &lt; 2.5</td>
</tr>
<tr>
<td></td>
<td>Signals</td>
<td>% within Life Cycle</td>
<td>All signalized intersections within 25 year life cycle</td>
</tr>
<tr>
<td></td>
<td>Bridges</td>
<td>Bridges Programmed</td>
<td>All structurally deficient bridges programmed for replacement or rehabilitation; no more than 0.1% structurally deficient at any one time</td>
</tr>
<tr>
<td>2. Improve safety for all transportation users</td>
<td>Vehicles</td>
<td>County Average Crash Rate</td>
<td>50% reduction in year 2000 rate (0.5 x 1.0) = (2.41 crashes per million vehicle miles [mmv]) by 2030</td>
</tr>
<tr>
<td></td>
<td>Vehicles</td>
<td>Segment Crash Rate</td>
<td>50% reduction in year 2000 rate (0.5 x 1.01) = (1.01 crashes per mmv) by 2030</td>
</tr>
<tr>
<td></td>
<td>Vehicles</td>
<td>Intersection Crash Rate</td>
<td>50% reduction in year 2000 rate (0.5 x 0.81) = (0.41 crashes per million vehicles [mv] entering) by 2030</td>
</tr>
<tr>
<td></td>
<td>Bicycles</td>
<td>Bicycle Crash History**</td>
<td>50% reduction in year 2000 crashes (0.5 x 191) = 91 crashes by 2030; consider conversion to crash rate by 2013</td>
</tr>
<tr>
<td></td>
<td>Pedestrians</td>
<td>Pedestrian Crash History</td>
<td>50% reduction in year 2000 crashes (0.5 x 184) = 92 crashes by 2030</td>
</tr>
<tr>
<td>3. Provide mobility and choice to meet the diversity of transportation needs as well as to support health objectives throughout the county</td>
<td>Transit</td>
<td>Regional Transit Ridership</td>
<td>Double 2003 regional transit ridership by 2020 (2 x 73.3) = 146.6 million riders</td>
</tr>
<tr>
<td></td>
<td>Bicycles</td>
<td>Bicycle usage**</td>
<td>Double bicycle usage by 2030: TBD</td>
</tr>
<tr>
<td></td>
<td>Bicycles</td>
<td>Miles Bikeways Facilities Built</td>
<td>Completion of bike system by 2030</td>
</tr>
<tr>
<td></td>
<td>Bicycles</td>
<td>Lanes and Gaps Removed</td>
<td>Average of five gaps closed per year with all gaps closed by 2030</td>
</tr>
<tr>
<td></td>
<td>Pedestrians</td>
<td>% of urban roadways with sidewalks</td>
<td>% of urban roadways with sidewalks; provide sidewalks on all urban roadways by 2030</td>
</tr>
<tr>
<td></td>
<td>Roadways</td>
<td>Volume to capacity ratio</td>
<td>All county roadway segments have V/C ratios ≤ 1.0 unless adverse social impacts will result</td>
</tr>
<tr>
<td></td>
<td>Roadways</td>
<td>Intersection Level of Service (LOS)</td>
<td>All intersections on county projects designed to provide LOS “D” or better unless adverse social impacts will result</td>
</tr>
<tr>
<td></td>
<td>System</td>
<td>Accessibility**</td>
<td>≥% of residential units within 25 minutes of major employment center or by transit; ≥% of residential units within 25 minutes of major employment center by transit</td>
</tr>
<tr>
<td>4. Increase spatial efficiency of system</td>
<td>Land Use</td>
<td>Proximity of growth near major transit facilities**</td>
<td>60 percent of new residents and new jobs (growth) within 1/2 mile of a major transit corridor and/or multi-modal transit hub</td>
</tr>
<tr>
<td></td>
<td>Land Use</td>
<td>Housing and Transportation Affordability Index**</td>
<td>To be determined</td>
</tr>
<tr>
<td>5. Reduce the county’s environmental footprint</td>
<td>Vehicles</td>
<td>Vehicle miles traveled per capita</td>
<td>Reduce VMT per capita to 2000 levels</td>
</tr>
<tr>
<td></td>
<td>Air Quality**</td>
<td>Hennepin County to maintain attainment status. Specific elements for tracking air quality are to be determined</td>
<td></td>
</tr>
</tbody>
</table>

*These metrics are not intended to commit the county to spend unlimited resources to achieve the goals, but will help guide investment and policy decision and inform stakeholders.

**Additional effort is needed to specifically define the evaluation measures and identified targets.

mmv – per million vehicle miles, mv – per million vehicles
Public Involvement and Agency Review

In December 2008, a draft version of the HC-TSP was distributed to Hennepin County cities, state agencies, counties, the Metropolitan Council, other agencies and park districts, plus about two dozen consultants that typically work in the transportation planning field. More than a dozen cities, Anoka County, the Metropolitan Council, Mn/DOT, Three Rivers Park District and three consulting firms provided comments.

A series of four open house informational meetings were held in September and October 2009 throughout Hennepin County to present the plan. Notification of the information meetings was handled through news press releases to various media outlets and notices to the recipients of the draft report. A few cities were able to insert notices within their city newsletters, and notice was also posted in the monthly newsletter of the North-Central Chapter of the Institute of Transportation Engineers (the NCITE Inciter).

Approximately 80 persons attended the open house meetings. Most attendees were city and agency staff members, while some elected officials and a handful of interested residents also attended. The news press releases generated an invitation to be interviewed by the Star Tribune, which led to an article in the newspaper on September 16, 2009.