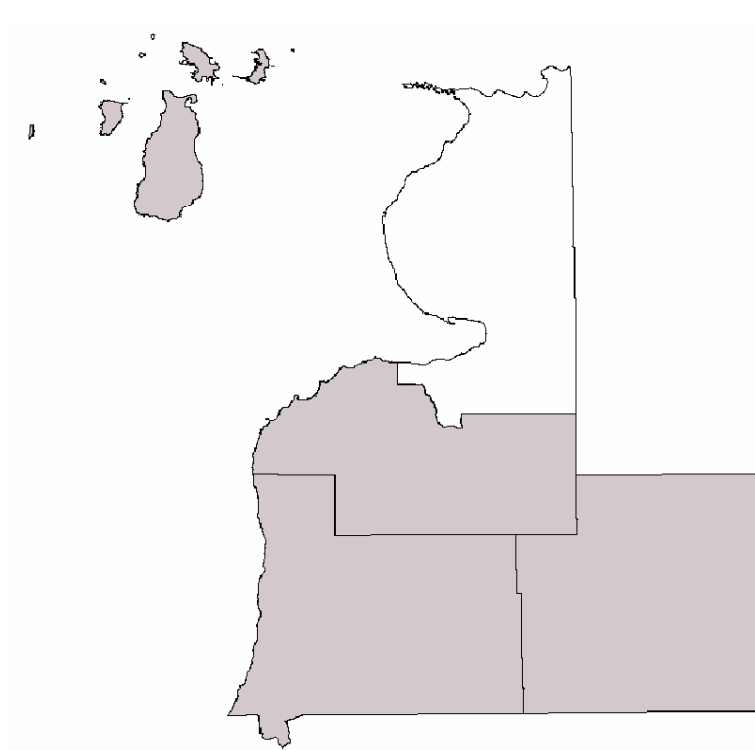


*Health Department of Northwest Michigan*

**DISTRICT SANITARY CODE**



**Counties of Antrim, Charlevoix  
and Otsego**

**Effective Date:  
February 25, 2007**

APPROVED BY COUNTY BOARD OF COMMISSIONERS  
FROM ANTRIM – CHARLEVOIX – EMMET – OTSEGO COUNTIES  
AND NORTHWEST MICHIGAN COMMUNITY HEALTH AGENCY

**TABLE OF CONTENTS**

**ARTICLE I - AUTHORITY, JURISDICTION AND ADMINISTRATION**

1-1 INTENT..... 1  
1-2 AUTHORITY AND TITLE ..... 1  
1-3 JURISDICTION AND ADMINISTRATION ..... 1  
1-4 ENFORCEMENT ..... 1  
1-5 RIGHT OF ENTRY AND INSPECTION ..... 1  
1-6 ESTABLISHMENT AND HANDLING FEES ..... 1  
1-7 ABATEMENT OF NUISANCES ..... 2  
1-8 AMENDMENTS ..... 2  
1-9 OTHER LAWS AND REGULATIONS ..... 2  
1-10 REPORTS ..... 2

**ARTICLE II - DEFINITIONS**

2-1 ABANDONED WATER SUPPLY ..... 2  
2-2 ABSORPTION SYSTEM ..... 2  
2-3 ADVANCED TREATMENT SYSTEM ..... 2  
2-4 APPROVED/APPROVAL ..... 3  
2-5 AVAILABLE PUBLIC WATER SUPPLY ..... 3  
2-6 AVAILABLE PUBLICLY OPERATED SEWER SYSTEM ..... 3  
2-7 BEDROOM ..... 3  
2-8 BENEFITTED PARCEL ..... 3  
2-9 BURDANED LAND ..... 3  
2-10 CONVENTIONAL SUBSURFACE SEWAGE DISPOSAL SYSTEM ..... 3  
2-11 DISTRIBUTION DEVICE ..... 3  
2-12 DISTRIBUTION HEADER / MANIFOLD ..... 3  
2-13 DISTRIBUTION SYSTEM ..... 4  
2-14 DISTRICT BOARD OF HEALTH ..... 4  
2-15 DOSING ..... 4  
2-16 DOSING CHAMBER, PUMPING CHAMBER ..... 4  
2-17 ELEVATED ABSORPTION (MOUND) SYSTEM ..... 4  
2-18 FILL MATERIAL ..... 4  
2-19 GARBAGE ..... 4  
2-20 GRADE DROP-OFF ..... 4  
2-21 GRAVITY FLOW ..... 4  
2-22 HABITABLE BUILDING ..... 4  
2-23 HABITABLE ROOM ..... 5  
2-24 HEALTH AGENCY ..... 5  
2-25 HEALTH OFFICER ..... 5  
2-26 IMPERVIOUS ..... 5  
2-27 INFILTRATIVE SURFACE ..... 5  
2-28 LICENSED PROFESSIONAL ENGINEER ..... 5  
2-29 LOW PRESSURE DISTRIBUTION ..... 5  
2-30 MAXIMUM HIGH GROUNDWATER ELEVATION ..... 5  
2-31 MOTTLING ..... 5  
2-32 NATURAL GROUND SURFACE ..... 6  
2-33 ORDINARY HIGH WATER MARK ..... 6  
2-34 OWNERS, PERSONS OWNING PREMISES ..... 6  
2-35 PERSON ..... 6  
2-36 PREMISES ..... 6

2-37	PUBLIC WATER SUPPLY .....	6
2-38	REPLACEMENT WATER WELL .....	6
2-39	RUBBISH .....	7
2-40	SEPARATE, LEGALLY RECOGNIZED PARCEL .....	7
2-41	SEPTIC TANK .....	7
2-42	SEPTIC TANK MARKER .....	7
2-43	SEPTIC TANK RISER .....	7
2-44	SEWAGE .....	7
2-45	SEWAGE TREATMENT AND DISPOSAL FACILITIES .....	7
2-46	SEWAGE TREATMENT AND DISPOSAL SYSTEM .....	7
2-47	SEWAGE (EFFLUENT) FILTER .....	7
2-48	SEWER LINE .....	8
2-49	SOIL PERMEABILITY .....	8
2-50	STREAM .....	8
2-51	SUCCESSOR BUILDING .....	8
2-52	SURFACE WATER .....	8
2-53	TOE OF MOUND .....	8
2-54	WATER SUPPLY .....	8
2-55	WATER TABLE .....	8
2-56	WELL .....	8

**ARTICLE III – LAND DIVISIONS, SUBDIVISIONS AND CONDOMINIUM DEVELOPMENTS**

3-1	REQUIREMENTS .....	9
3-2	DEVELOPMENT PROPOSALS .....	9
3-3	ENVIRONMENTAL APPROVAL .....	10
3-4	DEED RESTRICTIONS, RESTRICTIVE COVENANTS AND ADVISORIES .....	10
3-5	FINAL APPROVAL .....	11

**ARTICLE IV – SEWAGE TREATMENT AND DISPOSAL**

4-1	SEWAGE TREATMENT AND DISPOSAL ON ALL PREMISES .....	11
4-2	CONSTRUCTION PERMIT REQUIRED .....	11
4-3	OPERATION PERMIT REQUIRED .....	11
4-4	PERMIT APPLICATION .....	11
4-5	TERM OF PERMITS .....	12
4-6	PERMIT ON-SITE .....	12
4-7	CHANGES AND REVISIONS .....	12
4-8	CRITERIA FOR CONSTRUCTION PERMIT APPROVAL – CONVENTIONAL SUBSURFACE SEWAGE TREATMENT AND DISPOSAL SYSTEM .....	12
4-9	CRITERIA FOR CONSTRUCTION PERMIT APPROVAL – ELEVATED ABSORPTION FIELD (MOUND) .....	13
4-10	CRITERIA FOR CONSTRUCTION PERMIT APPROVAL – ADVANCED TREATMENT SYSTEM (ATS) .....	14
4-11	CONSTRUCTION PERMIT ISSUANCE .....	15
4-12	MAINTENANCE CONTRACTS – ADVANCED TREATMENT SYSTEM (ATS) .....	15
4-13	TERMINATION OF MAINTENANCE CONSTRCT – ADVANCED TREATMENT SYSTEM (ATS) .....	16
4-14	CRITERIA FOR OPERATION PERMIT APPROVAL – ADVANCED TREATMENT SYSTEM (ATS) .....	16
4-15	FAILURE OF AN ADVANCED TREATMENT SYSTEM (ATS) .....	17
4-16	INSPECTION AND APPROVAL – ALL SEWAGE TREATMENT AND DISPOSAL SYSTEMS AND FACILITIES .....	17
4-17	INSPECTION AND APPROVAL – ELEVATED ABSORPTION SYSTEMS (MOUNDS) .....	17

4-18	INSPECTION AND APPROVAL – ADVANCED TREATMENT SYSTEMS (ATS)	18
4-19	CONDEMNATION OF EXISTING INSTALLATIONS	18
4-20	SUCCESSOR BUILDINGS	19
4-21	CHANGE OF USE	19

**ARTICLE V – REQUIREMENTS FOR CONSTRUCTION OF INDIVIDUAL SEWAGE TREATMENT AND DISPOSAL SYSTEMS**

5-1	DESIGN CRITERIA	19
5-2	SEPTIC TANKS	19
5-3	SEPTIC TANK RISERS	19
5-4	SEPTIC TANK MARKERS	20
5-5	SEWAGE (EFFLUENT) FILTERS	20
5-6	HORIZONTAL ISOLATION REQUIREMENTS	20
5-7	FINAL TREATMENT AND DISPOSAL	20
5-8	ABSORPTION FIELD AREA	20
5-9	ABSORPTION TRENCHES	21
5-10	ABSORPTION BEDS	21
5-11	FILTER FABRIC	22
5-12	PUMPING	22
5-13	DOSING	22
5-14	LOW PRESSURE DISTRIBUTION	22
5-15	ELEVATED ABSORPTION SYSTEM (MOUND)	23
5-16	ALTERNATIVE METHODS	24
5-17	PRIVIES AND OTHER TOILET DEVICES	24
5-18	SEWAGE TREATMENT AND DISPOSAL SYSTEM EASEMENTS	24

**ARTICLE VI – WELLS AND WATER SUPPLIES**

6-1	WATER SUPPLIES	26
6-2	PERMIT REQUIRED	26
6-3	PERMIT APPLICATION	26
6-4	CRITERIA FOR PERMIT APPROVAL	26
6-5	PERMIT ISSUANCE	27
6-6	INSPECTIONS	27
6-7	DEVIATION FROM TERMS OF THE PERMIT	27
6-8	ISOLATION DISTANCES	27
6-9	CONTAMINATED WATER SUPPLIES	27
6-10	ABANDONMENT OF WELLS	28
6-11	PUMP AND WELL ROOMS	28

**ARTICLE VII – PUBLIC HEALTH NUISANCES**

7-1	HEALTH OFFICER	28
7-2	ABATEMENT	28

**ARTICLE VIII – GARBAGE AND RUBBISH**

8-1	SCOPE	28
8-2	ACCUMULATION OF GARBAGE	28
8-3	ACCUMULATION OF RUBBISH	29
8-4	DISPOSAL OF GARBAGE AND RUBBISH	29

**ARTICLE IX – VARIANCES**

9-1 VARIANCE – WHEN PERMITTED .....29  
9-2 VARIANCE STANDARDS.....29  
9-3 WRITTEN DECISION.....29  
9-4 CONDITIONS ON VARIANCE.....30  
9-5 DENIAL OF VARIANCE – APPEAL.....30

**ARTICLE X – PERMIT REVOCATION**

10-1 REVOCATION OF PERMITS .....30  
10-2 PERMIT REVOCATION PROCEDURE .....30

**ARTICLE XI – BOARD OF APPEALS**

11-1 BOARD OF APPEALS FOR EACH COUNTY .....31  
11-2 COMPENSATION .....31  
11-3 APPEALS .....31  
11-4 HEARINGS .....31  
11-5 DECISION AND STANDARD FOR DECISION .....31  
11-6 MEETINGS – RULES OF PROCEDURE .....32  
11-7 NOTICES .....32

**ARTICLE XII – INTERPRETATION, INJUNCTIVE RELIEF, PENALTY, SEVERABILITY AND AMENDMENTS**

12-1 INTERPRETATION .....32  
12-2 INJUNCTIVE RELIEF.....32  
12-3 VIOLATION – CIVIL INFRACTION.....32  
12-4 SERVERALBILTY.....32  
12-5 AMENDMENTS.....33

**NORTHWEST MICHIGAN COMMUNITY HEALTH AGENCY  
DISTRICT SANITARY CODE  
ANTRIM, CHARLEVOIX and OTSEGO COUNTIES**

**ARTICLE I            AUTHORITY, JURISDICTION AND ADMINISTRATION**

**1-1 INTENT**

The intent of this code is to protect the environment and the public health, safety and welfare in Antrim, Charlevoix and Otsego Counties.

**1-2 AUTHORITY AND TITLE**

The District Board of Health of Antrim, Charlevoix, Emmet and Otsego Counties governs the District Health Department currently known as the Northwest Michigan Community Health Agency. Under authority Act 368 of the Public Acts of 1978, the District Board of Health may enact these regulations for the protection of public health and sanitation. These regulations shall be known as the District Sanitary Code and may be called the “code” elsewhere in these regulations.

**1-3 JURISDICTION AND ADMINISTRATION**

The Health Officer shall have jurisdiction throughout Antrim, Charlevoix and Otsego Counties, including all cities, villages and townships, in the administration and enforcement of these regulations, including all amendments hereafter adopted unless otherwise specifically stated. Nothing herein contained shall be construed to restrict or abrogate the authority of any municipality to adopt more restrictive ordinances. The Health Officer shall have the right to delegate any administrative or enforcement authority or duty granted by this code to an employee or agent of the Northwest Michigan Community Health Agency or its successor.

**1-4 ENFORCEMENT**

All premises affected by these regulations shall be subject to inspection by the Health Officer, and the Health Officer may collect such samples for laboratory examination as he deems necessary for the enforcement of these regulations.

**1-5 RIGHT OF ENTRY AND INSPECTION**

The Health Officer may inspect any premises at reasonable times with the consent of the owner or person in charge of the premises. No person shall molest or resist the Health Officer in the discharge of the Health Officer’s duty. In the event that a Health Officer is refused permission to inspect any premises at reasonable times, the Health Officer shall have authority to apply for an administrative search warrant pursuant to MCL 333.2241 through MCL 333.2247; MSA 14.15(2241) through MSA 14.15(2247).

**1-6 ESTABLISHMENT AND HANDLING OF FEES**

All fees for service shall be established by the District Board of Health. All fees for service shall be collected by the Northwest Michigan Community Health Agency and shall be receipted for and deposited with the Charlevoix County Treasurer and credited to the Northwest Michigan Community Health Agency.



## 2-4 APPROVED/APPROVAL

Approved or approval denotes that a condition, facility, thing, premise, action or use, is in satisfactory compliance with the intent, purpose and applicable standards of these regulations.

## 2-5 AVAILABLE PUBLIC WATER SUPPLY

“Available public water supply” means a waterworks system that provides water for drinking or household purposes to persons other than the supplier of the water and is located in a right-of-way, easement, highway, street or public way which crosses, adjoins, or abuts upon the property and passing not more than 200 feet at the nearest point from a structure and when the local governmental agencies having jurisdiction will allow connection to that water supply.

## 2-6 AVAILABLE PUBLICLY OPERATED SEWER SYSTEM

“Available publicly operated sewer system” means a public sanitary sewer system located in a right-of-way, easement, highway, street or public way which crosses, adjoins, or abuts upon the property and passing not more than 200 feet at the nearest point from a structure in which sanitary sewage originates and when the local governmental agencies having jurisdiction will allow connection to that sewer.

## 2-7 BEDROOM

Any space in the conditioned area of a dwelling unit or accessory structure which is used for the placement of beds, bunks, fold-away beds or other furniture used for sleeping, or which could reasonably be expected to be used as such.

## 2-8 BENEFITED PARCEL

A “benefited parcel” means land which will be served by a proposed sewage treatment and disposal system.

## 2-9 BURDENED LAND

The term “burdened land” means the land over or under which any portion of a sewage treatment and disposal system will be located.

## 2-10 CONVENTIONAL SUBSURFACE SEWAGE DISPOSAL SYSTEM

A system which includes a building sewer, one or more septic tanks, a subsurface drain field, and all associated connections, fittings, and appurtenances.

## 2-11 DISTRIBUTION DEVICE

The term “distribution device” means a watertight receptacle installed with proper footings, provided with outlets on the same horizontal plane, used for the purpose of assuring the equal distribution of the septic tank effluent when such effluent is being disposed of by means of any absorption field, trench or bed.

## 2-12 DISTRIBUTION HEADER / MANIFOLD

A conduit used to disperse septic tank effluent in equal amounts to the pipelines in a soil absorption system.



## 2-13 DISTRIBUTION SYSTEM

A "distribution system" is a system of pipe lines used to disperse septic tank effluent uniformly throughout a soil absorption system.

## 2-14 DISTRICT BOARD OF HEALTH

The term "District Board of Health" shall mean the District Board of Health of Antrim, Charlevoix, Emmet and Otsego Counties.

## 2-15 DOSING

Application of septic tank effluent to the absorption field in controlled amounts, so as to intermittently flood and rest the soil.

## 2-16 DOSING CHAMBER, PUMPING CHAMBER

A watertight tank or receptacle used for the purpose of retaining septic tank effluent pending its automatic discharge to a selected point in the distribution system.

## 2-17 ELEVATED ABSORPTION (MOUND) SYSTEM

Any soil absorption system having its infiltrative surface at or any distance above the natural ground surface.

## 2-18 FILL MATERIAL

"Fill material" shall mean clean medium textured sand, free of clay, silt, black dirt, and vegetation or other undesirable foreign material, or other material specified and approved by the Health Officer.

## 2-19 GARBAGE

Rejected food wastes, including waste accumulation of animal, fruit or vegetable matter used or intended for food or that attend the preparation, use, cooking, dealing in or storing of meat, fish, fowl, fruit, or vegetables or other putrescible wastes.

## 2-20 GRADE DROP-OFF

"Drop-off" means a man-made cut or natural slope where side slope is in excess of 50%.

## 2-21 GRAVITY FLOW

Flow without induced pressure, as characterized by a free liquid surface.

## 2-22 HABITABLE BUILDING

The term "Habitable Building" shall mean any structure or part thereof where persons live, sleep, reside, are employed, or congregate and which is occupied in whole or in part.

## 2-23 HABITABLE ROOM

“Habitable room” means a room or enclosed floor space suitable for human living, sleeping, cooking, or eating purposes. A habitable room does not include bathrooms, water closet compartments, laundries, pantries, foyers, or communicating corridors, closets and storage spaces.

## 2-24 HEALTH AGENCY

The term “Health Agency” shall mean the Northwest Michigan Community Health Agency or successor agency or health department serving the counties of Antrim, Charlevoix, Emmet and Otsego.

## 2-25 HEALTH OFFICER

The term “Health Officer” shall mean the Director of the Northwest Michigan Community Health Agency and/or his authorized representatives.

## 2-26 IMPERVIOUS

“Impervious” shall mean any material which does not percolate one (1) inch of water in sixty (60) minutes, using standard percolation tests.

## 2-27 INFILTRATIVE SURFACE

The soil - aggregate interface below an absorption bed, trench, drywell, block trench etc. where effluent begins to fill the pore spaces of the porous material below an soil absorption system.

## 2-28 LICENSED PROFESSIONAL ENGINEER

The term “licensed professional engineer” shall mean a professional civil engineer who is licensed under article 20 of the occupational code, Act 299 of the Public Acts of 1980, being §§399.2001 to 339.2014 of the Michigan Compiled Laws.

## 2-29 LOW PRESSURE DISTRIBUTION

Flow induced by pumping or other means as characterized by minimum pressures of two (2) feet of piezometric head (or 0.87 pounds per square inch) in the distribution piping.

## 2-30 MAXIMUM HIGH GROUNDWATER ELEVATION

"Maximum high ground water elevation" means the elevation of the upper surface of the zone of saturation as may occur during the normally wet periods of the year. The term includes perched and apparent conditions that are seasonally saturated for a time period in excess of two weeks. For the purpose of this code, the high ground water elevation will be determined by observing subsurface saturated conditions and/or groundwater indicators, such as soil mottling and redoximorphic features.

## 2-31 MOTTLING

“Mottling”, also known as redoximorphic features, is the result of the oxidation, reduction and translocation of soil minerals (primarily iron and manganese) and begins to occur after a soil has been periodically saturated for significant lengths of time. The actual standing water may be

above or below the mottled zone resulting from seasonal fluctuations in water table or in response to other temporal climatic events.

#### 2-32 NATURAL GROUND SURFACE

The ground surface formed on the site through the forces of nature and not significantly altered by man through excavating, importing fill soil or other means.

#### 2-33 ORDINARY HIGH WATER MARK

The term “ordinary high water mark” means the line between upland and bottomland which persists through successive changes in water levels, below which the presence and action of the water are so common or recurrent that the character of the land is marked distinctly from the upland and is apparent in the soil itself, the configuration of the surface of the soil, and the vegetation.

On an inland lake that has an established legal lake level, it means the high established level. Where water returns to its natural level as the result of the permanent removal or abandonment of a dam, it means the natural ordinary high water mark.

On Great Lakes waters regulated by the Michigan Department of Environmental Quality, the term refers to the known high water elevation established at 580.5 feet International Great Lakes Datum (IGLD) 1985 for Lake Michigan and its connected tributaries.

#### 2-34 OWNERS, PERSONS OWNING PREMISES

The terms “owners” and “persons owning premises” shall mean both the owner of title and of record and those occupying or in possession or control of any property or premises.

#### 2-35 PERSON

The term “person” shall mean an individual, firm, partnership, party, corporation, company, society, association or other legal entity.

#### 2-36 PREMISES

“Premises” shall mean a tract or parcel of land which is occupied or on which a habitable building is located and shall include the building.

#### 2-37 PUBLIC WATER SUPPLY

A “public water supply” means a water supply which provides water for drinking or household purposes to persons other than the supplier of water and that meet the definitions of public water supplies as outlined in Act 399, P.A. 1976 as amended.

#### 2-38 REPLACEMENT WATER WELL

A water well that is installed to provide water to a premise as a result of the existing water well or water supply being unable to provide water of adequate quantity or quality or when the construction or location of the existing water well or water supply poses a potential threat to the public health.

## 2-39 RUBBISH

Non-putrescible solid wastes excluding ashes consisting of both combustible and non-combustible wastes, such as paper, cardboard, metal containers, yard clippings, wood, glass, bedding, crockery, demolished building materials and litter of any kind that will be detrimental to the public health and safety.

## 2-40 SEPARATE, LEGALLY RECOGNIZED PARCEL

A “separate, legally recognized parcel” means a parcel of land, which is described in a legal description separate from the benefited parcel and which was created in compliance with applicable law.

## 2-41 SEPTIC TANK

A watertight receptacle used for the purpose of receiving all sewage and so designed as to permit the collection of solids from such wastes and to permit such retained solids to undergo decomposition therein.

## 2-42 SEPTIC TANK MARKER

The term “septic tank marker” means a device to mark the location of the effluent inspection port of the septic tank.

## 2-43 SEPTIC TANK RISER

The term “septic tank riser” means a device that is connected to a septic tank, extends to ground surface and has a cover or lid which prevents unauthorized access. Risers present a means to readily locate and provide access for inspection and routine maintenance of a septic tank.

## 2-44 SEWAGE

The liquid waste from all habitable buildings, as well as human excreta, as well as wastes from toilets, urinals, sinks, laundries, shower baths, bath tubs, dishwashers, garbage grinders, and septic tank overflow or effluent and any other liquid waste of organic or chemical nature, either singularly or in any combination.

## 2-45 SEWAGE TREATMENT AND DISPOSAL FACILITIES

Those devices used in the treatment and disposal of sewage, including but not limited to, a privy, seepage pit, dry well, block trench, sewer line, septic tank, absorption field, trench, or bed.

## 2-46 SEWAGE TREATMENT AND DISPOSAL SYSTEM

The term “sewage treatment and disposal system” shall mean the method of disposing of sewage by means of a sewer line connected to a septic tank or aerobic tank and one or more of the following: dry well, seepage pit, block trench, absorption field, trench or bed or any other similar device or devices approved by the Health Officer.

## 2-47 SEWAGE (EFFLUENT) FILTER

A device intended to filter suspended solids from septic tank effluent prior to conveyance to a

soil absorption field.

2-48 SEWER LINE

Any watertight pipe or conduit used for the conveying of sewage.

2-49 SOIL PERMEABILITY

The measure of the rate at which liquid (typically water) passes in one direction through soil under saturated conditions.

2-50 STREAM

A stream is a natural or artificial body of water that has definite banks, a bed, and visible evidence of a flow of water.

2-51 SUCCESSOR BUILDING

Any premise that replaces a premise that during construction, remodeling or renovation activities and which becomes uninhabitable for any amount of time or is greater than fifty (50) percent replaced.

2-52 SURFACE WATER

The term “surface water” means any of the following: the Great Lakes and their connecting waterways, inland lakes, rivers, streams, ponds and areas that present standing water.

2-53 TOE OF MOUND

The perimeter of a mound where it’s fill material and cover meets the natural ground surface.

2-54 WATER SUPPLY

“Water supply” means a system of pipes and structures through which water is obtained, including, but not limited to, the source of the water, such as wells, surface water intakes, or hauled water storage tanks, and pumping and treatment equipment, storage tanks, pipes and appurtenances, or a combination thereof, used or intended to furnish water for domestic or consumer use.

2-55 WATER TABLE

The highest elevation in the soil where all voids are filled or have been filled with water, as may be indicated by a free water surface or soil mottling or other information.

2-56 WELL

“Well” means an opening in the surface of the earth for the purpose of removing groundwater for domestic use, irrigation well, recharge well, waste disposal well or a well used temporarily for dewatering purposes during construction.

## ARTICLE III

## LAND DIVISIONS, SUBDIVISIONS AND CONDOMINIUM DEVELOPMENTS

### 3-1 REQUIREMENTS

A permit or approval of a parcel less than one acre, a proposed platted subdivision development or a proposed condominium development, where the development is not served by a publicly operated water supply system and public sanitary sewer system, shall be issued if the requirements of this code have been met.

### 3-2 DEVELOPMENT PROPOSALS

Developments which propose the use of individual water supply and/or sewage treatment and disposal systems, privately owned public water supply and/or privately owned community wastewater treatment and disposal systems or the use of existing water supply and/or sewage treatment and disposal systems shall be submitted to the Health Officer for review and approval. A licensed professional engineer or licensed land surveyor shall prepare and submit for review a development report and supporting documentation regarding the suitability of the site for the proposed use.

The licensed professional engineer or licensed land surveyor shall submit a certification of suitability of the site for the proposed use in regards to the installation of or use of existing water supplies and/or sewage treatment and disposal systems through the submittal of a narrative outlining his/her findings and conclusions which support his/her certification of suitability.

Four copies of the site report, site development plan and supporting documentation shall be submitted to the Health Officer and shall include but not be limited to the following:

- A. A narrative statement and site development plan that articulates and conveys the proposed use, size and arrangement of units and/or lots.
- B. Indicate all areas in excess of twelve (12) percent slope. Also, show all natural drainage areas and structures.
- C. A site development plan in a scale not to exceed 1":60'.
- B. In the case of waterfront property indicate high water elevations and two (2) foot vertical contour intervals if ground water table is within sixty inches (60") of the natural ground surface.
- D. Show maximum high ground water table where such is within sixty inches (60") of the natural ground surface.
- E. The location and results of soil evaluations using procedures acceptable to the Health Agency.
- F. For developments proposing to utilize individual or privately owned public water supplies, information which demonstrates the availability of ground water that is of acceptable quality and quantity in a formation which is adequately protected with respect to potential sources of contamination must be provided.
- G. The proposed name of the development.

- H. Location as to Section Number, Town, Range, Township and County.
- I. The name and address of the owner, proprietor and applicant.
- J. North point, date, street names, unit and/or lot and development dimensions.
- K. Typical layout of the single family dwelling and facilities for each individual unit and/or lot. If the proposed use of units and/or lots will be for other than single family residences, the use and location shall be indicated and a typical layout showing building and facility locations provided for each unit and/or lot so used.
- L. Existing and proposed contours where site modifications are proposed. Site modifications shall be shown in two (2) foot vertical contour intervals.
- M. Existing and proposed utility easements.
- N. Location of existing structures, wells and sewage treatment and disposal systems.
- O. Location of lakes, rivers, streams or other surface waters or where conditions of ponding or flooding are known to occur and where such conditions may be in conflict with the development of safe and adequate systems for water supply and sewage treatment and disposal systems.
- P. Any potential sources of contamination of proposed water supplies for the project.
- Q. The location of water supplies used to determine water supply suitability relative to development location.
- R. The signature and seal of the licensed professional engineer or licensed land surveyor preparing the report.
- S. Other information as deemed necessary by the Health Agency to demonstrate site suitability.

### 3-3 ENVIRONMENTAL APPROVAL

A development plan shall be approved when conditions noted in the site report, supporting documentation and certification of suitability or when the unit and/or lot size or arrangement of units and/or lots have been demonstrated to meet the requirements of this code. The review of the development plan shall take into account the anticipated use to be made of any unit, lot or division of land.

The Health Officer shall review the information submitted and determine if the information is accurate, representative and adequately supports the certification of suitability. If the Health Officer determines the development plan, supporting documentation and certification of suitability adequately demonstrates that the proposed development meets the requirements of this code and all state statutory requirements or administrative rules, then he shall send to the municipal corporation an approval of environmental suitability.

### 3-4 DEED RESTRICTIONS, RESTRICTIVE COVENANTS AND ADVISORIES

The agency may require, as a condition of approval, that the owner record deed restrictions,

restrictive covenants and/or advisories for the protection of the public health, safety and welfare and the environment.

### 3-5 FINAL APPROVAL

Final approval of a development which proposes the use of individual water supply and/or sewage treatment and disposal systems, privately owned public water supply and/or privately owned community wastewater treatment and disposal systems or the use of existing water supply and/or sewage treatment and disposal systems shall not be granted approval until the conditions and/or restrictions for approval have been made part of the master deed and/or restrictive covenants for the proposed development and a copy of the recorded master deed and/or restrictive covenants are submitted for review.

## **ARTICLE IV SEWAGE TREATMENT AND DISPOSAL**

The intent of this article is to provide regulations to control the installation and maintenance of private, semi-private and public sewage treatment and disposal systems where no municipal sewage facility is available; to establish minimum criteria for such installation; to protect the health, safety and welfare of the people of Antrim, Charlevoix and Otsego Counties.

### 4-1 SEWAGE TREATMENT AND DISPOSAL ON ALL PREMISES

It shall be unlawful for any person to construct, alter, occupy or maintain any premise which is not equipped with a sewage treatment and disposal system that complies with this code. It shall be unlawful for any person to construct or operate a sewage treatment and disposal system unless a permit has been issued for the sewage treatment and disposal system pursuant to this code and for which a final approval has been granted pursuant to this code.

Under no condition shall sewage be discharged or deposited upon the surface of the ground or into a roadside ditch or watercourse, stream or lake, or into any drain other than a sanitary sewer and those systems approved by the Health Officer. As used in this code, the term "permit" includes any conditions contained in the permit.

### 4-2 CONSTRUCTION PERMIT REQUIRED

It shall be unlawful for any person to construct, repair, alter or extend any sewage treatment and disposal facility within Antrim, Charlevoix or Otsego Counties unless he has a construction permit issued by the Health Officer.

### 4-3 OPERATION PERMIT REQUIRED

It shall be unlawful for any person to install or operate any Advanced Treatment System (ATS) or any sewage treatment and disposal system that uses an easement for the conveyance or disposal of residential or commercial wastewater within Antrim, Charlevoix or Otsego Counties unless he has an operation permit issued by the Health Officer.

Operation permits shall expire on December 31 of the third year after issuance. Operation permits must be renewed and completed applications for renewal shall be submitted to the Health Agency no later than October 1<sup>st</sup> of the third year.

### 4-4 PERMIT APPLICATION

A permit application, signed by the owner or owner's representative, shall be required for any



installation of a sewage treatment and disposal system. A plan of the proposed treatment and disposal system with such data as the Health Officer may require shall be submitted on forms supplied by the Health Agency.

A completed application for a construction permit for an Advanced Treatment System (ATS) shall consist of a Health Agency approved application form which contains all specified information, a certified copy of the applicant's deed or land contract, all other documents as required in the application, detailed engineered plans signed by and bearing the seal of a licensed professional engineer and the application fee. Any site modifications are to be shown in detail on the engineering plans. The applicant must provide proof of ownership by a recorded document of title. If the applicant does not own fee simple interest in the land, a consent form, approved by the Health Agency, must be signed by the owner of fee simple interest. An application that is not complete shall not be approved.

#### 4-5 TERM OF PERMITS

Any construction permit issued pursuant to the requirements of the preceding sections shall be valid for the term of twenty-four (24) months from the date of issuance, unless revoked as provided in the following.

Any operation permit issued pursuant to the requirements of the preceding sections shall be valid for the term of up to thirty-six (36) months from the date of issuance and expiring on December 31<sup>st</sup> of the third calendar year, unless revoked as provided in the following.

#### 4-6 PERMIT ON-SITE

A copy of the signed construction permit must be at the site of a proposed or existing residence for which the construction permit was issued, during the construction of and until the final inspection has resulted in an approval by the Health Officer of the sewage treatment and disposal system.

#### 4-7 CHANGES AND REVISIONS

No changes shall be made in the approved plans without the written consent of the Health Agency and the property owner or the property owner's authorized agent. A revision in development plans, constructing or installing sewage treatment and disposal facilities inconsistent with the permit or a change in site conditions, from those upon which the approval was based, will require an application for a new permit, and all sections of this code pertaining to new permits will then apply.

#### 4-8 CRITERIA FOR CONSTRUCTION PERMIT APPROVAL – CONVENTIONAL SUBSURFACE SEWAGE TREATMENT AND DISPOSAL SYSTEM

A conventional subsurface sewage treatment and disposal system may be permitted at a site where all of the following site characteristics or conditions exist:

- A. A publicly operated sewage system is not available.
- B. The property served includes sufficient area for the minimum isolation distances required in Table 5-6.
- C. The soil permeability rate is sixty (60) minutes per inch or more rapidly permeable.

- D. The maximum high groundwater level is greater than sixty inches (60") below the natural ground surface. A vertical separation of forty-eight inches (48") shall be provided between the infiltrative surface of subsurface soil absorption system and maximum high groundwater elevation.
- E. In the case of property adjoining surface water, the natural ground surface is greater than sixty inches (60") above the ordinary high water mark.
- F. Bedrock or impervious soil stratum is not within seventy-two inches (72") of the natural ground surface.
- G. The natural ground slope does not exceed twelve (12) percent.

4-9 CRITERIA FOR CONSTRUCTION PERMIT APPROVAL -- ELEVATED ABSORPTION FIELD (MOUND)

An elevated absorption field (mound) may be permitted at a site where all of the following conditions are met:

- A. A publicly operated sewage system is not available.
- B. Suitable area meeting the requirements of Section 4-8 of this Article is not available on the site.
- C. A remote location to which sewage may be pumped meeting the requirements of Section 4-8 of this Article is not available.
- D. The minimum horizontal isolation distances required in Table 5-6 can be provided.
- E. The soil permeability rate is sixty (60) minutes per inch or more rapidly permeable.
- F. The maximum high groundwater elevation is greater than twenty-four inches (24") from the natural ground surface. A vertical separation of forty-eight inches (48") shall be provided between the infiltrative surface of soil absorption system and maximum high groundwater elevation.
- G. In the case of property adjoining surface water, the natural ground surface is greater than twenty-four inches (24") above the ordinary high water mark.
- H. Bedrock or impervious soil stratum is not within forty-eight inches (48") of the natural ground surface.
- I. The natural ground slope does not exceed twelve (12) percent.
- J. The natural ground slope does not exceed six (6) percent at a site where the soil permeability rate is thirty (30) minutes per inch or less rapidly permeable.
- K. Peat, muck, or marl is not within sixty inches (60") of the natural ground surface.
- L. The site is not subject to flooding.

4-10 CRITERIA FOR CONSTRUCTION PERMIT APPROVAL – ADVANCED TREATMENT SYSTEM (ATS)

An Advanced Treatment System shall be permitted where the applicant has provided competent, material and substantive evidence which allows the Health Agency to find that all of the following standards have been met and all of the following required information has been provided:

- A. A publicly operated sewage system is not available.
- B. Suitable area meeting the requirements of Section 4-8 of this Article is not available on the site.
- C. A remote location to which sewage may be pumped meeting the requirements of Section 4-8 of this Article is not available.
- D. The minimum horizontal isolation distances required in Table 5-6 can be provided.
- E. The disposal location for effluent from an ATS shall be located a minimum of 100 feet from surface water. Where the ordinary high water mark of the body of water can or has been determined, the effluent disposal location shall be measured from that point.
- F. The soil permeability is sixty (60) minutes per inch or more rapidly permeable.
- G. The ATS Unit is NSF/ANSI 40, Class I-2005 certified for residential wastewater treatment systems.
- H. The proposed ATS is capable of producing effluent with:
  - a. For discharges further than 150 feet from a surface water body:
    - i. Biological Oxygen Demand (BOD<sub>5</sub>) less than or equal to 30 mg/L
    - ii. Total Suspended Solids (TSS) less than or equal to 30 mg/L
    - iii. Total Inorganic Nitrogen (TIN) less than or equal to 30 mg/L
  - b. For discharges within 150 feet from a surface water body:
    - i. Biological Oxygen Demand (BOD<sub>5</sub>) less than or equal to 30 mg/L
    - ii. Total Suspended Solids (TSS) less than or equal to 30 mg/L
    - iii. Total Inorganic Nitrogen (TIN) less than or equal to 30 mg/L
    - iv. Total Phosphorous (TP) less than or equal to 5 mg/L
- I. The maximum high groundwater elevation is greater than eighteen inches (18”) from the natural ground surface. A vertical separation of thirty-six inches (36”) shall be provided between the infiltrative surface of soil absorption system and maximum high groundwater elevation.
- J. In the case of property adjoining surface water, the natural ground surface is greater than twenty-four inches (24”) above the known high water mark or greater than twenty-four inches (24”) above the ordinary high water mark of Lake Michigan.
- K. Bedrock or impervious soil stratum is not within twenty-four inches (24”) of the natural ground surface.

- L. The natural ground slope does not exceed twelve (12) percent.
- M. The natural ground slope does not exceed six (6) percent at a site where the soil permeability rate is thirty (30) minutes per inch or less rapidly permeable.
- N. Peat, muck, or marl is not within sixty inches (60") of the natural ground surface.
- O. The site is not subject to flooding. A wetland determination may be required prior to issuance of a construction permit.
- P. The applicant shall provide the Health Agency with the maintenance specifications of the manufacturer and the maintenance specifications of the engineer for the entire ATS.
- Q. The applicant shall provide the Health Agency with a notarized copy of a Notice of Advanced Treatment System that has been recorded with the Register of Deeds in the county in which the premises is located and which contains the page and liber numbers of the recordation.
- R. An approved operation permit is acquired for the proposed Advanced Treatment System (ATS).

#### 4-11 CONSTRUCTION PERMIT ISSUANCE

If the proposed construction meets the requirements of this code, a construction permit shall be issued by the Health Agency.

#### 4-12 MAINTENANCE CONTRACTS – ADVANCED TREATMENT SYSTEM (ATS)

A maintenance contract shall be submitted to this Health Agency for approval and is required prior to issuance of the operation permit for an Advanced Treatment System (ATS). At a minimum the maintenance contract shall provide that:

- A. The ATS shall be inspected and the effluent sampled /evaluated not less than twice annually by a maintenance contractor who shall be a licensed professional engineer, State of Michigan or nationally registered sanitarian in private practice or a certified ATS inspector. The maintenance provider's license, registration, or certification must be current and in good standing.
- B. The maintenance contractor shall provide the Health Agency with a proposed operation and maintenance schedule for review.
- C. The ATS system must have the capabilities for offsite remote monitoring 24 hours a day, 7 days a week by the manufacturer, distributor and/or maintenance provider.
- D. The first operation and maintenance inspection shall be conducted thirty (30) to ninety (90) days of ATS start-up.
- E. The inspection(s) and any regular maintenance required by the manufacturer, design engineer and operation permit shall be prepaid for three (3) years.
- F. The semi-annual inspection shall determine and inspection report shall describe whether the ATS:

- i. Is functioning in compliance with the standards of section 4-10 (H.) and include all analytical testing which has been done to make this determination.
  - ii. Continues to be compliance with the maintenance specifications of the manufacturer.
  - iii. Continues to be compliance with the maintenance specifications of the engineer for the ATS.
  - iv. Continues to be compliance with conditions imposed by all permits issued by the Health Agency
  - v. The ATS is performing in the manner in which it was approved.
- G. The inspection report must include a description of all maintenance performed on the ATS or any of its components since the last inspection report.
- H. The maintenance contract must be assignable to subsequent owners of the premises, which is equipped with the ATS.
- I. The maintenance contractor acknowledges the obligation to notify the Health Agency of a discontinuation of services as required by Section 4-13.
- J. An inspection report shall be submitted to the Health Agency and the property owner within thirty (30) days of any inspections required by the Health Agency.
- K. The Health Agency, as deemed necessary, may require additional inspections and inspection parameters.

#### 4-13 TERMINATION OF MAINTENANCE CONTRACT – ADVANCED TREATMENT SYSTEM (ATS)

The property owner and maintenance contractor shall notify the Health Agency within thirty (30) days if for any reason the services required by the maintenance contract are no longer being performed.

#### 4-14 CRITERIA FOR OPERATION PERMIT APPROVAL –ADVANCED TREATMENT SYSTEM (ATS)

An operation permit shall be issued by the Health Agency if the applicant has provided competent, material and substantive evidence which allows the Health Agency to find that all of the following standards have been met:

- A. The ATS is functioning in compliance with the standards of section 4-10 (H.) based on analytical analysis and field observations of the ATS and its effluent.
- B. The ATS continues to be in compliance with the maintenance specifications of the manufacturer.
- C. The ATS continues to be in compliance with the operation and maintenance specifications established by the design engineer.
- D. The property owner has a valid maintenance contract in effect as required by this code.
- E. The ATS and property owner continue to be in compliance with conditions of any permits issued by the Health Agency and the Michigan Public Health Code.

An operation permit shall be valid only as long as the ATS remains in compliance with the requirements and restrictions stated on construction and operation permits as well as the performance standards outlined in 4-10 (H.).

#### 4-15 FAILURE OF AN ADVANCED TREATMENT SYSTEM (ATS)

If the ATS fails to meet the standards in Section 4-10 (H.), any provision of the maintenance contract or a condition of the construction permit or operation permit, the owner shall immediately notify the Health Officer of the failure and, at his or her sole expense, immediately take action to identify and correct the cause(s) of the failure. Corrections and additional effluent sampling shall be conducted to demonstrate compliance with Section 4-10 (H.) without endangerment to public health or the environment.

Where the cause of failure cannot be corrected within a one-month period, the owner shall enter into an agreement approved by the Health Officer to provide for the proper disposal of septage generated on the property. The Health Officer shall approve such an agreement if it provides, in a timely manner, for the lawful disposal of septage by a State of Michigan licensed septage hauler until such time as the ATS can operate as required by the operation permit.

#### 4-16 INSPECTIONS AND APPROVAL— ALL SEWAGE TREATMENT AND DISPOSAL SYSTEMS AND FACILITIES

The Health Officer shall make such inspections at the site as the Health Officer deems necessary. The owner or the owner's agent shall notify the Health Officer when the project is ready for inspection. Notification must be provided a minimum of two (2) working days or forty-eight (48) hours prior to anticipated system completion and desired final inspection by the Health Officer.

The system must be left in a condition that allows for proper inspection and may not be put into use prior to an inspection and approval by the Health Officer, except with the permission of the Health Officer and submittal of a sewage treatment and disposal system affidavit.

Engineered systems shall be inspected by the design engineer and an affidavit with an "as-built" drawing shall be submitted to the Health Agency within five (5) working days.

#### 4-17 INSPECTIONS AND APPROVAL— ELEVATED ABSORPTION SYSTEMS (MOUNDS)

For elevated absorption (mound) systems, the following inspections shall be performed by a licensed professional engineer and the engineer shall certify the inspection on a form provided by the Health Agency:

- A. A licensed professional engineer shall inspect the site immediately prior to, during and after fill placement. The engineer shall establish site benchmarks and inspect for and certify that:
  1. The site was properly scarified prior to fill placement.
  2. There was no significant compacting or smearing of the infiltrative surface.
  3. Acceptable fill material is used.
  4. Such fill is properly placed.
  
- B. The Health Officer and a licensed professional engineer shall inspect the site after installation of the distribution piping but prior to final cover and shall observe the system perform during a dosing cycle. The Health Officer and a licensed professional engineer shall inspect for and

certify that:

1. The system is properly constructed and the dosing pump is of adequate size.
  2. That the system is adequately and uniformly distributing the liquid.
- C. A licensed professional engineer shall inspect the site when installation is completed. The engineer shall inspect for and certify that:
1. The elevated absorption field has been properly covered and graded.
  2. The surface perimeter of the elevated absorption field has been stabilized to prevent erosion.
- D. Health Officer shall make such additional inspections at the site as the Health Officer deems necessary.

In no event shall the system be deemed an “adequate” facility for the treatment and disposal of sewage under Section 4-1 until the required inspections and certifications are satisfactorily completed and submitted to the Health Agency. Inspection by a licensed professional engineer shall be at the expense of the occupant, applicant, owner, or agent. An inspection and certification by a private, registered sanitarian shall be acceptable in place of inspection and certification by a licensed professional engineer as required by this Section.

#### 4-18 INSPECTIONS – ADVANCED TREATMENT SYSTEMS (ATS)

For Advanced Treatment Systems, the following inspections shall be performed by a licensed professional engineer and the engineer shall certify the inspection on a form provided by the Health Agency:

- A. A licensed professional engineer shall inspect the advanced treatment unit or facility immediately prior to, during and after installation and certify that:
1. The advanced treatment unit or facility is installed according to the engineered site plan.
  2. The advanced treatment system is installed in compliance with the ATS construction permit and all conditions.
  3. All system components and appurtenances are installed correctly.
  4. Advanced treatment unit or facility is in good working condition, functioning properly and meets all manufacturer design parameters.

If an elevated absorption field (mound) is to be used as part of the sewage treatment and disposal system, all of the requirements of Section 4-17 INSPECTIONS AND APPROVAL – ELEVATED ABSORPTION SYSTEMS (MOUNDS) must be met.

#### 4-19 CONDEMNATION OF EXISTING INSTALLATIONS

The Health Officer may condemn an existing sewage treatment and disposal system, where the effluent therefrom is exposed to the surface of the ground or is permitted to drain onto the surface of the ground or into any lake, river, storm sewer or stream, or where the seepage of effluent may endanger a public or private water supply or where a public nuisance is created by a system improperly constructed or maintained. An individual sewage treatment and disposal system so condemned shall be repaired, rebuilt, or replaced by a system constructed according to provisions of this code within a period of time specified by the Health Officer.

## 4-20 SUCCESSOR BUILDINGS

A building or mobile home using an existing sewage treatment and disposal system may be replaced or succeeded by a building or mobile home which may use the same treatment and disposal system provided approval of the Health Officer is first obtained and the system is deemed adequate for the replacement building in terms of the stated requirements of this code.

## 4-21 CHANGE OF USE

Any change in use of an existing building or sewage treatment and disposal system shall require approval of the Health Officer as to the adequacy of the sewage treatment and disposal system in terms of the stated requirements of this code.

# ARTICLE V REQUIREMENTS FOR CONSTRUCTION OF INDIVIDUAL SEWAGE TREATMENT AND DISPOSAL SYSTEMS

## 5-1 DESIGN CRITERIA

The standards herein shall be the minimum design criteria and shall apply to sewage treatment and disposal systems for single family dwellings and duplexes.

For systems serving other establishments, including multiple dwellings, and public or semi-public buildings such as apartments, condominiums, motels, restaurants, gasoline service stations and the like, design specifications found in the “Manual of Septic Tank Practice”, U.S. Public Health Services publication number 526; in the “Design Manual; Onsite Wastewater Treatment and Disposal Systems”, U.S. EPA Report number EPA 625/R-00/008 (February 2002); and in the “Michigan Criteria for Subsurface Sewage Disposal”, (April 1994) of the Michigan Department of Public Health will apply as a guide and provide appropriate design standards.

For all sewage treatment and disposal systems, plans and specifications shall be submitted. If the plans and specifications meet the requirements of this code and any applicable state statutes and rules, a permit shall be issued by the Health Agency.

## 5-2 SEPTIC TANKS

Design and construction of septic tanks shall be subject to the approval of the Health Officer prior to construction or installation. In general, the design specifications found in *Residential Wastewater Systems*, National Association of Home Builders of the United States, 1980, as revised, or the *EPA Design Manual* shall apply as guidelines.

The minimum liquid capacity of a septic tank serving a single dwelling shall be 1,000 gallons for a dwelling having three (3) bedrooms or less, and 250 additional gallons for each additional bedroom in excess of three (3).

A septic tank owner or his agent shall regularly inspect the tank and shall arrange for the removal and safe disposal of the contents of the tank whenever the top of the sludge layer is within twelve (12) inches below the bottom of the outlet baffle, or whenever the scum layer is within three (3) inches above the bottom of the outlet baffle.

## 5-3 SEPTIC TANK RISERS

Each septic tank installed, where the top of the tank is greater than eighteen inches (18”) below finished grade, shall have a septic tank riser installed and terminated at finished grade. Septic



tank risers shall be installed to provide access for routine maintenance, minimize odors and to prevent unauthorized and unsupervised entry.

#### 5-4 SEPTIC TANK MARKERS

Septic tank markers shall be used to identify the outlet baffle of the septic tank when a riser is not used or necessary.

#### 5-5 SEWAGE (EFFLUENT) FILTERS

Each septic system installed shall be equipped with a sewage (effluent) filter in the outlet baffle of the septic tank or in the discharge line of a pump system. If multiple tanks are installed, the filter shall be installed in the last tank.

#### 5-6 HORIZONTAL ISOLATION REQUIREMENTS

The components of a sewage treatment and disposal system shall be located not closer than the following horizontal distances away from the item named:

**TABLE 5-6 MINIMUM HORIZONTAL ISOLATION DISTANCES  
(FEET TO SEWAGE TREATMENT AND DISPOSAL SYSTEM COMPONENT)**

FROM	Absorption Field	Toe of Mound	Sewers <sup>1</sup>	Sewers <sup>2</sup>	Sewers <sup>3</sup>
Wells <sup>4</sup> or Suction Lines	50	50	10	50	50
Pressure Water Line (buried)	10	10	10	10	10
Property Line	10	10	10	10	10
Foundation Wall	10	10	NA	5	5
Grade Drop-Off	20	20	5	10	10
Lake, Stream or Surface Water <sup>5</sup>	100	175 (100 <sup>6</sup> )	10	50	50

<sup>1</sup>Cast Iron, Schedule 40 PVC (plastic) or equivalent. <sup>2</sup>Other materials, including force main. <sup>3</sup>Includes pump and dosing chambers. <sup>4</sup>Applies to individual residential water supply wells, for Type II A or B, and Type III water supplies refer to Act 399, P.A. 1978. <sup>5</sup>In the case of Lake Michigan or connected water bodies, isolation shall be measured from the Ordinary High Water Mark as defined in Article II. In the case of other lakes or streams, isolation shall be measured from the known high water mark. <sup>6</sup>Minimum horizontal isolation for Advanced Treatment Systems.

#### 5-7 FINAL TREATMENT AND DISPOSAL

Final treatment and disposal of all septic tank effluent shall be by means of application to the soil below an absorption field. The absorption field piping may flow by gravity, dosing or low pressure. The design, construction and materials of absorption fields shall be subject to the prior approval of the Health Officer.

#### 5-8 ABSORPTION FIELD AREA

A new absorption field shall provide bottom area for a minimum of two (2) bedrooms. An absorption field, trench or bed shall provide not less than the following basal areas for each

bedroom served:

**TABLE 5-8 MINIMUM SOIL ABSORPTION FIELD BOTTOM AREA  
(SQUARE FEET PER BEDROOM)**

SOIL PERMEABILITY Min. Per Inch	SOIL TYPE	TRENCH AREA REQUIRED	BED AREA REQUIRED
> 6	Course to Medium Sand	125	250
6 to 10	Fine Sand	165	330
10 to 12	Loamy Sand	190	380
12 to 30	Sandy Loam	250	500
30 to 45 ++	Sandy Clay Loam	300	Not Suitable
40 to 60++	Loam, Silt Loam	330	Not Suitable
60++	Clay Loam, Silty Clay Loam Silty Clay, Clay	Not Suitable	Not Suitable

++ soils can have varying amounts of sand, silt and clay and therefore can have a wide range of permeabilities. Some soil types may exceed permeabilities listed.

Soil determinations and percolation rates are to be based on field evaluations. However, when percolation tests are conducted, the procedure for percolation tests outlined in the "Michigan Criteria for Subsurface Sewage Disposal" (April, 1994) shall be followed.

#### 5-9 ABSORPTION TRENCHES

An absorption trench shall have one (1) distribution pipe centered in the trench width. Trench spacing shall be not less than as follows:

**TABLE 5-9 MINIMUM SPACING OF ABSORPTION FIELD TRENCHES**

TRENCH BOTTOM Width (Inches)	MINIMUM SPACING Center to Center (Feet)
18 to 24	6.5
24 to 30	7.0
30 to 36	7.5

#### 5-10 ABSORPTION BEDS

An absorption bed shall have two (2) or more parallel distribution pipes. The outermost pipes shall be located not closer than six (6) inches and not further than two (2) feet from the bed side wall. The maximum spacing center to center of distribution pipes shall be four (4) feet for gravity flow and five (5) feet for low pressure distribution.

The following additional requirements shall apply to trenches and beds:

**TABLE 5-10 TRENCH AND BED CONSTRUCTION DETAILS**

ITEM	MAXIMUM	MINIMUM
Number of trenches	----	2
Length of single lateral pipe (feet)	100	----
Width of trench (inches)	36	18
Trench or bed bottom below finished grade (inches)	30	----
Depth of aggregate below laterals (inches)	----	6
Depth of aggregate above laterals (inches)	----	2
Total depth of aggregate	----	12
Below pipe within root area of trees	----	12
Size of Aggregate <sup>1</sup> (inches)	1 ½	1/2
Slope of trench or bed bottom	Level	Level
Slope of gravity flow pipe (inches per foot)	2	1/8
Diameter of gravity flow pipe (inches)	----	4

<sup>1</sup>Clean washed stone

#### 5-11 FILTER FABRIC

Filter (geotextile) fabric is required for all soil absorption systems at the interface between the top of the drainfield aggregate and the final disposal field soil cover. Filter fabric must be a non-woven fabric with a weight not to exceed 2.0 oz. per square yard.

#### 5-12 PUMPING

Where site conditions require, septic effluent may be pumped to the absorption field. Pumping shall be from a separate chamber downstream from the septic tank. Pumping capacity shall be sufficient to deliver the required flow against static head and pipe friction.

The pump chamber shall have a reserve volume that provides for temporary loss of power or other pump failure, shall have a high level warning device and be provided with a septic tank riser. Design and construction of pump chambers shall be subject to the prior approval of the Health Officer. Force mains shall be adequately protected against freezing.

#### 5-13 DOSING

A sewage treatment and disposal system may include provisions for dosing the absorption field. When dosing is employed, the frequency shall be suitable for the absorption field soil texture, and the dosing volume shall be compatible with the distribution pipe volume.

#### 5-14 LOW PRESSURE DISTRIBUTION

When effluent is applied by means of low pressure distribution piping, the distribution network and its perforations (orifices) shall be sized to provide acceptably uniform application rates when lateral pipe friction is considered. As a guide, the calculated application flow rates should not differ by more than ten (10) percent in the orifices of a single lateral pipe, nor by more than fifteen (15) percent in the orifices of all the lateral pipes.

The minimum inside diameter of low pressure distribution piping shall be one (1) inch and the minimum diameter of pipe perforations shall be one quarter (1/4) inch. Orifice shields shall be utilized to uniformly distribute septic tank effluent and to prevent orifice obstruction. The design

of a low pressure distribution system shall be in accordance with generally accepted engineering practices.

#### 5-15 ELEVATED ABSORPTION SYSTEM (MOUND)

An elevated absorption field (mound) shall be subject to all applicable requirements stated elsewhere in Article V, and to the following additional requirements:

- A. Preferred location shall be on level ground or at the crest of slopes. In any location, adequate means for diverting surface run-off shall be provided.
- B. An elevated absorption field on sloping ground shall have its longer dimension across the slope. Vertical requirements for isolation from water or unsuitable soils shall be measured at the up-slope edge or corner of the field.
- C. The ground below a mound shall be free of brush, stumps, and long grasses. The natural soil shall be scarified in a manner which provides good interface with the sand fill, but which does not compact or otherwise alter the soil structure. Plowing to eight (8) inches deep is an acceptable method. Rototilling is not. On sloping ground, furrows shall be made to lie across the slope. Site preparation shall not proceed when unusual moisture content has made the soil vulnerable to smearing or compacting.
- D. Mound fill material shall be subject to the prior approval of the Health Officer. Before the absorption aggregate is placed, the fill material shall be compacted sufficiently to insure against future settlement and loss of vertical isolation distance.

The depth of the fill shall be adequate to maintain four (4) feet of vertical separation from the infiltrative surface of the bed to the following:

- 1. Maximum high ground water level.
  - 2. Ordinary high water mark of an adjoining lake or stream.
  - 3. Pervious or fractured rock.
  - 4. Impervious soil or rock.
- E. The absorption field area shall be as required in Table 5-8 for the fill material used. The preferred shape for a bed is long and narrow.
  - F. The base of the fill material at the natural soil (i.e., toe of mound) shall have an area which equals or exceeds the area required in Table 5-8 for the natural soil type in the column for bed bottom. On a sloping site, only the area directly below the absorption field and downslope to the toe of the mound may be considered as contributing to the required area.
  - G. Effluent shall be distributed by means of low-pressure distribution piping. Distribution piping shall be provided with a means to clean and maintain the distribution network (clean-outs, lateral sweeps etc.)
  - H. Perimeter fill material must extend from the final finished grade and extend in all directions from the absorption field in a 3:1 slope.
  - I. The covering material above the absorption field shall be loamy sand or sandy loam in texture at least six inches (6") deep at the sides and twelve inches (12") deep at the center of the field. In addition, the entire mound shall have at least six inches (6") of topsoil cover, and shall have grass cover established and maintained to prevent soil erosion.

- J. An elevated absorption system shall be designed by a licensed professional engineer. The plans and specifications shall be in accordance with generally accepted engineering practices and shall bear the engineers stamp or seal.

#### 5-16 ALTERNATIVE METHODS

An alternative method of sewage treatment and disposal may be approved by the Health Officer if it provides equal or better treatment of sewage than the methods provided in this code.

#### 5-17 PRIVIES AND OTHER TOILET DEVICES

All privies and other toilet devices shall be constructed and maintained in accordance with Act 273, of the Public Acts of 1939 and the regulations adopted by the state Council of Health June 6, 1940, as last revised on July 20, 1946, entitled: "A Regulation Pertaining to the Construction and Maintenance of Outhouses and to Safeguard the Public Health by Preventing the Spread of Disease and the Existence of Sources of Contamination."

#### 5-18 SEWAGE TREATMENT AND DISPOSAL SYSTEM EASEMENTS

Any sewage disposal and treatment system that requires the use of a legally-recognized parcel of land other than the premises where the sewage is generated (called the "off-site parcel") for any portion of the sewage disposal and treatment system must be in compliance with the following:

- A. If the applicant will place any portion of the sewage disposal system on a separate, legally recognized parcel, then an easement must be prepared and recorded in accordance with this section. A third party must have ownership of the burdened land. If the parcels are owned by the applicant, then the applicant shall comply with section 5-18(D).
- B. The easement shall be in a recordable form approved by the Health Agency. The Health Agency shall determine whether the form of the easement meets this code, whether the easement document is ambiguous and the easement document is legally binding.
- C. In addition to the application fee and prior to a decision on the application, the applicant shall reimburse the Health Agency for all attorney fees incurred by the Health Agency related to legal review of the easement. The Health Agency will seek such legal review only when it has a good faith question regarding the form, completeness, or legality of the easement. The Health Agency shall set and revise the application fee as needed to cover the Health Agency's estimated costs in processing an application.
- D. If the applicant will place any portion of the sewage disposal system on a separate, legally recognized parcel that is also owned by the applicant, then the applicant shall have prepared and sign an affidavit in a form approved by the Health Agency that contains at a minimum the legal descriptions of the burdened land and the benefited parcel; the names of all owners; the existence of the portion of the sewage disposal system that is located on the burdened parcel; and a statement that, at the time of separation of the common ownership of the benefited and burdened parcels, an easement document must be prepared and recorded with the County Register of Deeds as required by this regulation and the terms of the septic permit that is located on the benefited parcel.

If a septic permit is issued for a sewage disposal system and any portion of that sewage disposal system will be located on a separate, legally recognized parcel that is also owned by the applicant, then it shall be a condition of the permit that the applicant prepare and

record the affidavit described above and, in addition, that an easement be created and recorded as required by this code if the common ownership of the benefited and burdened parcels is terminated.

- E. For purposes of maintenance and repair of the sewage disposal system, the easement shall include an area which is at least ten feet (10') from any portion of any component of the sewage disposal system.
- F. Plans must be submitted for a drain field that will be located on burdened land. Plans shall include a survey that shows the boundaries of the burdened land and the location of the drain field. The survey shall be certified by a registered land surveyor within sixty (60) days of the date of the submission to the Health Agency of the application for the sewage disposal system permit.
- G. If the easement is in a form which has not been pre-approved by the Health Agency, then, in addition to the requirements that are specified in section 5-18(B), the easement document must include the legal description of the easement; the legal descriptions of the burdened land and the benefited parcel; the purpose or land use of the buildings being served by the septic system (for example, single family residential or commercial), the maximum effluent burden which can be placed on the burdened land (for example, a drain field for a three-bedroom house); that there may be no increase in the effluent discharge on the burdened land without an easement amendment which has been approved by the Health Agency and the owner of the burdened land will run with the benefited and burdened parcels.
- H. The Health Agency shall require written evidence that all requirements of these regulations have been met.
- I. The Health Agency shall require proof that all documents which must be in recordable form have been recorded with the County Register of Deeds prior to the issuance of the sewage disposal system permit.
- J. The sewage disposal system shall meet all requirements of this code.
- K. An operation permit must be obtained from the Health Agency for any sewage disposal system requiring an easement. The operation permit shall allow the use of off-site or remote disposal of residential or commercial wastewater for a maximum of three (3) years from the time of permit issuance.

A new operation permit must be obtained every three (3) years for as long as the easement is used in conjunction with a benefited parcel for the purposes of sewage conveyance and disposal and also when there is any change in use of the benefited parcel.

A complete application for an operation permit for an off-site system shall consist of an Health Agency-approved application form which contains all specified information so that the Health Agency can make a determination regarding whether the standards for the issuance of the operation permit have been met. An application that is not complete shall not be approved.

- L. An operation permit shall be issued by the Health Agency if the applicant has provided competent, material and substantial evidence which allows the Health Agency to find that all of the following standards have been met:
  - 1. Risers are secure and watertight.

2. Effluent filters are clean and functional.
3. All pumps, floats and alarms are functioning properly.
4. Adequate pressure exists to provide for proper conveyance and uniform distribution of wastewater to the final disposal area.
5. No evidence of failure of any component of the system or observance of sewage on the ground surface exists.

The Health Agency may impose operation permit conditions that are designed to promote compliance with the standards listed above as part of the issuance of an operation permit. An operation permit shall be valid only as long as the sewage disposal system remains in compliance with the requirements and restrictions stated on construction and operation permits.

M. No person shall:

1. Use or occupy a premises on a benefited parcel when the sewage disposal system that serves the benefited parcel is not in compliance with these regulations, the operation permit or operation permit conditions.
2. Use or occupy a premises that is required by law to be served by a sewage disposal system when any portion of the sewage disposal system is located on two (2) or more legally recognized parcels of land unless there is compliance with these regulations.

## ARTICLE VI WELLS AND WATER SUPPLIES

It is hereby recognized that supply of safe potable water is fundamental to individual, public, and community health; that water supply facilities installed and operated in a proper manner are necessary for safeguarding public health; that water supplies furnishing water for human consumption need to be isolated and protected from sewage or other sources of pollution; and that contamination of water resources and supplies, or the creation of conditions menacing the public health, should be prevented.

### 6-1 WATER SUPPLIES

All water supplies shall be located, constructed and maintained in accordance with the specifications outlined in Act 399, P.A. 1978 and Part 127 of Act 368, P.A. 1976 and administrative rules.

### 6-2 PERMIT REQUIRED

It shall be unlawful for any person to install a water supply within Antrim, Charlevoix or Otsego County unless a permit has been issued by the Health Officer

### 6-3 PERMIT APPLICATION

An application signed by the applicant, for a permit to install a water well shall be required for any installation. A plan of the proposed water well installation, with such data as the Health Officer may require shall be submitted on forms supplied by the Health Agency.

### 6-4 CRITERIA FOR PERMIT APPROVAL

The Health Officer shall have the right to deny a permit where one or more of the following

conditions exist:

- A. An available public water supply exists.
- B. The property served lacks sufficient area to achieve the minimum isolation distances required in Table 6-8 and in applicable state law and regulations.
- C. The site is subject to ponding or flooding.
- D. No wastewater facilities are proposed, exist or are allowable on the site.

#### 6-5 PERMIT ISSUANCE

If the proposed installation meets the requirements of this code, a permit shall be issued by the Health Agency.

#### 6-6 INSPECTIONS

The Health Officer shall make such inspections at the site as he deems necessary.

#### 6-7 DEVIATION FROM TERMS OF THE PERMIT

Failure to construct according to the terms of the permit shall be deemed a violation of these regulations for which the owner and/or installer shall be held liable. Such failure may result in the revocation of the permit and proper abandonment of the well.

#### 6-8 ISOLATION DISTANCES

A private residential well shall be located not closer than the following horizontal distances away from the source of pollution named:

**TABLE 6-8 MINIMUM HORIZONTAL ISOLATION DISTANCES**

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SOURCE OF POLLUTION	DISTANCE (FEET)	MINIMUM
Septic Tank		50
Absorption Field		50
Building Sewer of Cast Iron, Schedule 40 PVC (plastic) or equivalent		10
Building Sewer of other materials, including force mains		50
Oil and Gas Wells		300
Other sources		50

Other water supply wells shall be isolated in accordance with state statutes and administrative rules.

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#### 6-9 CONTAMINATED WATER SUPPLIES

When at least two (2) consecutive samples of water from an existing well show coliform organisms present, such water supplies shall be considered contaminated. Consecutive samples shall mean those taken by the Health Officer at least seven (7) days apart.



Contaminated water supplies shall be repaired or replaced to meet the requirements of this code within a time period specified by the Health Officer. Contaminated water supplies which, in the judgment of the Health Officer, represent an immediate health hazard shall be posted with suitable signs at each outlet, or the outlet shall be made inoperative.

#### 6-10 ABANDONMENT OF WELLS

At the time a replacement water well is installed, an approved public water supply is connected to a premise or if an existing water well is no longer in use or becomes a potential threat to the public health or groundwater supply; the existing water well shall be plugged in accordance with the requirements outlined in Part 127, Act 368, of the Public Acts of 1978 and Administrative Rules as amended.

#### 6-11 PUMP AND WELL ROOMS

A room housing pumping equipment or the top of a well casing shall be constructed above the established ground surface and shall permit access to the pump for maintenance or repair, or may be located below grade if the containing room is located in or attached to an approved basement. In certain specific locations, a below grade installation may be permitted if approved in writing by the Health Officer.

### **ARTICLE VII PUBLIC HEALTH NUISANCES**

#### 7-1 HEALTH OFFICER

It shall be the duty of the Health Officer to investigate all nuisances, sources of filth, and potential sources of illness that may be injurious to the health of the inhabitants of Antrim, Charlevoix, or Otsego counties.

#### 7-2 ABATEMENT

Whenever any nuisance, source of filth, or potential cause of illness shall be found, the Health Officer shall order the owner or occupant thereof to remove or abate same within a specified time, but such correction shall not be required in less than twenty-four (24) hours. Failure to comply with such an order shall be deemed a violation of this code.

### **ARTICLE VIII GARBAGE AND RUBBISH**

#### 8-1 SCOPE

These regulations are intended to complement the requirements of Part 115 of the Natural Resources and Environmental Protection Act, Public Act 451 of 1994, as amended, and the administrative rules promulgated pursuant to that Act.

#### 8-2 ACCUMULATION OF GARBAGE

No person shall permit to accumulate upon his premise any garbage except in durable, covered containers of rodent proof, fly proof and watertight construction. Garbage containers shall not be filled to overflowing or permitted to become foul smelling or a breeding place for vermin or flies.

### 8-3 ACCUMULATION OF RUBBISH

No person shall permit to accumulate upon his premise any rubbish except in durable containers with close fitting covers, except that bulky rubbish such as tree limbs, weeds, large cardboard boxes, and the like, may be bundled and stored so as not to provide a harborage or breeding place for rodents.

### 8-4 DISPOSAL OF GARBAGE AND RUBBISH

Garbage and rubbish shall be disposed of in a manner which creates neither a nuisance nor a menace to health, and in accordance with the provisions of Part 115 of the Natural Resources and Environmental Protection Act, Public Act 451 of 1994, as amended, and the administrative rules promulgated pursuant to that Act.

An individual disposing of garbage and rubbish from his own household upon his own property shall do so in a manner that does not create a nuisance or hazard to public health. The disposal or accumulation of garbage or rubbish that may invite the breeding or collection of flies, mosquitoes, or rodents is prohibited.

## **ARTICLE IX                      VARIANCES**

### 9-1 VARIANCE – WHEN PERMITTED

- A. A variance from the requirements of this code is not permitted for new structures, the expansion of an existing structure, the replacement of an existing structure when the replacement structure has more bedrooms or has an increased floor area or the construction or operation of a new sewage disposal and treatment system.
- B. A variance from the requirements of this code may be granted by the Health Officer for the replacement of an existing sewage disposal and treatment system for an existing structure if the proposed structure does not violate section 9-1(A).

### 9-2 VARIANCE STANDARDS

Where, owing to special conditions of the property, strict compliance with the provisions of this code would be physically impossible for the replacement of an existing sewage disposal and treatment system, the Health Officer shall have the power to authorize one (1) or more variances from the requirements of this code. No such variance of the provisions of this code shall be granted unless all of the following facts and conditions exist:

- A. There are exceptional or extraordinary circumstances or conditions applicable to the property.
- B. The granting of such variance will not be detrimental to the health, welfare and safety of the public or materially injurious to other properties in the area which it is located.
- C. The proposed variance is for a sewage disposal and treatment system that is a replacement for a failed or inoperative, existing sewage disposal and treatment system and the structure to be served by the replacement system does not violate section 9-1(A).

### 9-3 WRITTEN DECISION

A decision regarding a request for a variance made by the Health Officer or Board of Appeals

shall be made in writing and shall include the facts and the basis for the determination regarding whether the variance standards were met or not met.

#### 9-4 CONDITIONS ON VARIANCE

Conditions may be imposed on the variance that are designed implement compliance with the performance standards of this code or that are necessary to provide the same protection to persons or the environment as if there had been strict compliance with the provisions of this code.

#### 9-5 DENIAL OF VARIANCE – APPEAL

The denial of a variance may be appealed to the Board of Appeals.

### **ARTICLE X PERMIT REVOCATION**

#### 10-1 REVOCATION OF PERMITS

Any permit issued pursuant to this code may be revoked by the Health Officer if the Health Officer finds that one or more of the following circumstances exist:

- A. Changes have taken place on or to the site so that the construction or operation of the object of the permit cannot comply with this code;
- B. The object of the permit is not constructed, is not operated, is not maintained or does not perform as required by this code or the applicable permit;
- C. The premises to be served by the object of the permit is not constructed or operated as stated in the permit application;
- D. The permit holder does not comply with the requirements of this code or the terms of the applicable permit; or
- E. The permit application is incomplete or inaccurate.

#### 10-2 PERMIT REVOCATION PROCEDURE

The revocation of a permit shall be taken pursuant to notice to the permit holder by the mailing of the notice of revocation via first class mail to the permit holder at the mailing address of the permit holder as provided in the application for the permit. The Health Officer may, but is not required to post the notice of revocation on the premises.

The notice of revocation shall contain the reasons for the revocation and notice that the permit holder has the right to request a meeting with the Health Officer. The request for the meeting shall be in writing and shall be made within sixty (60) days of the date of the posting of the notice of revocation. After the meeting, the Health Officer may continue the revocation, rescind the revocation or impose such conditions of the reinstatement of the permit as are necessary to require that the sewage treatment system is constructed as required by this code. If the permit holder is not satisfied with the decision of the Health Officer after the meeting, then the permit holder may appeal the Health Officer's decision to the Board of Appeals.

## **ARTICLE XI**

## **BOARD OF APPEALS**

### **11-1 BOARD OF APPEALS FOR EACH COUNTY**

The Board of Commissioners of each county shall appoint three (3) persons who shall serve as a Board of Appeals for that county. One (1) or more alternates may also be appointed. An alternate may serve in the absence or disqualification of a regular member of the Board of Appeals. The duty of such Board shall be to consider appeals from the decision of the officials charged with the enforcement of the code and which relate to property that is located within that county.

### **11-2 COMPENSATION**

The compensation for each member shall be that sum established for regular Board of Health meetings, and shall be paid by the County to its own Board of Appeals.

### **11-3 APPEALS**

Each appeal shall be in writing and shall be filed with the Health Officer. Such appeal must specify the following: the order, requirement, decision or determination that is being appealed; the section(s) of this code that apply to the appeal; and those facts on which the appellant will rely to support the appeal. An appeal that is incomplete is not ripe for decision by the Board of Appeals.

An appeal must be filed within thirty (30) days after the date of the decision that is being appealed. An untimely appeal shall be dismissed by the Board of Appeals. The appellant shall deposit a fee with the Health Officer when the appeal is filed. Fees for appeals shall be as established by the Board of Health.

The Health Officer shall transmit to the Board of Appeals a summary report of all previous action taken and the entire file pertaining to the subject of the appeal.

The final disposition of such appeal shall be in writing, concurred in by two (2) or more members of the Board, and may reverse, modify, or affirm the decision or the determination made by the Health Officer.

The Board of Appeals may impose conditions on the appellant or the property or premises in its decision. Any such conditions shall be designed to implement compliance with this code as much as the facts of the situation permit and to provide the same protection to persons or the environment as if there had been strict compliance with the provisions of this code.

### **11-4 HEARINGS**

The Board of Appeals shall set a reasonable time for the hearing and give due notice thereof to the appellant. The Board of Appeals shall decide the appeal within a reasonable time. The hearing shall be held in the county in which the property that is related to the subject matter of the appeal is located.

### **11-5 DECISION AND STANDARD FOR DECISION**

The decision of the Board of Appeals shall be the final administrative decision, shall be in

writing, and shall include specific findings of fact by the Board of Appeals, and further, shall be subject to such judicial review as by law may be provided.

The Board of Appeals may affirm, reverse, wholly or in part, a decision of the Health Officer. In deciding an appeal, the Board of Appeals shall determine (1) whether the Health Officer properly interpreted the code and (2) whether the decision of the Health Officer was factually correct. The Board of Appeals may include any conditions in its decision that the Health Officer could have made. Decisions shall be made by a majority of a quorum of the Board of Appeals.

#### 11-6 MEETINGS - RULES OF PROCEDURE

The Board of Appeals shall meet at such times as the Board may determine. The Board shall set a place of meeting and all meetings shall be open to the public. The Board shall adopt its own rules of procedure, and keep a record of its proceedings, showing the question(s) considered. The presence of three (3) members of the Board or alternate members of the Board shall constitute a quorum. Said meetings shall be conducted in accordance with the "Open Meetings Act", as amended.

#### 11-7 NOTICES

The Board of Appeals may send notice to the adjoining land owners surrounding the parcel of land in question, or any other interested person, but is not required to do so.

### **ARTICLE XII INTERPRETATION, INJUNCTIVE RELIEF, PENALTY, SEVERABILITY AND AMENDMENTS**

#### 12-1 INTERPRETATION

Where not inconsistent with the text, words used in the present tense include the future; words in the singular include the plural; and words in the plural include the singular. The word "shall" is always mandatory and not merely directory. Words or terms not defined herein shall be interpreted in the manner of their common meaning.

#### 12-2 INJUNCTIVE RELIEF

Notwithstanding the existence or pursuit of any other remedy, the Health Officer may maintain in a court of competent jurisdiction, an action for an injunction or other process against any person to restrain or prevent violations of the code.

#### 12-3 VIOLATION - CIVIL INFRACTION

No person or legal entity shall violate any provision or requirement of this code. A violation of this code shall be a municipal civil infraction as provided in MCL 600.113(c). A minimum fine of \$200.00 plus all damages, attorney fees and costs allowed by law shall be imposed for each violation. The failure to pay a court order authorized under MCL 600.8727 as amended shall allow the Health Officer to file a lien against the premises or property that is related to the violation as authorized by MCL 600.8737, as amended. Each day in which a person fails to comply with the provisions of this code shall constitute a separate and complete violation.

#### 12-4 SEVERABILITY

The provisions of this code are hereby declared to be severable and if any clause, sentence,

word, section or provision is declared void or unenforceable for any reason by a court of competent jurisdiction, the remaining portions of said code shall remain in full force and effect.

## 12-5 AMENDMENTS

The District Board of Health, with the approval of Antrim, Charlevoix, Emmet and Otsego County Boards of Commissioners, may from time to time amend, supplement or change these regulations with the approval of all Boards. Any such amendment, supplement, or change of these regulations shall be preceded by such public hearings and notice as are required by state statute.