

**FREEDOM TOWNSHIP
WASHTENAW COUNTY, MICHIGAN**

Private Community Wastewater Systems Ordinance

Ordinance No. 35

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THE TOWNSHIP OF FREEDOM, WASHTENAW COUNTY, MICHIGAN ORDAINS:

SECTION I - GENERAL

Section 1.1 - Intent and Purpose.

Whereas, pursuant to Part 41 of Act No. 451 of the Public Acts of 1994, as amended, the Michigan Department of Environmental Quality (MDEQ) is authorized to issue permits for private community on-site wastewater disposal systems that serve more than one (1) property (referred to as a “private community wastewater system” or PCWS); and

Whereas, MCL 324.4108(2) in part requires that “[t]he activities of a private, investor-owned wastewater utility shall comply with all applicable provisions of this act, local zoning and other ordinances. . .”; and

Whereas, the Township recognizes that regulation of the private community wastewater systems is necessary to protect the quality of surface waters and groundwater resources in the Township; and

Whereas, excess phosphate discharges into surface waters are a significant cause of use impairment in the waters of the State of Michigan, and can lead to harmful algal blooms, hypoxia, and declines in wildlife and wildlife habitat; and

Whereas, the Township has an obligation under its National Pollution Discharge Elimination System (NPDES) Phase II general discharge permit and certificate of coverage to reduce effluent discharges and protect water quality in the Huron River (Mill Creek) and River Raisin (Saline River) watersheds; and

Whereas, the Township recognizes that should the services of a PCWS fail or improperly function, the waters of the Township will be irreparably harmed, and that the extension of municipal sewerage systems may not be feasible. Adequate physical and financial replacement reserves will be essential to preserve the health, safety and welfare of the Township's residents; and the Township should be indemnified from any costs or liability in connection with the design, construction, operation, maintenance, repair and/or replacement, or failure of the PCWS.

Whereas, for these purposes, it is the Township's intent in passing this Ordinance to regulate all private community wastewater systems in the Township.

SECTION II - DEFINITIONS

Section 2.1 - Definitions

- A. **ACT 451** means Act No. 451 (MCL 324.4101 to 324.4111) of the Michigan Public Acts of 1994, as amended.
- B. **APPLICANT** means a person or entity having an ownership or other contractual interest in land that proposes to construct a PCWS or expand a PCWS on the land.
- C. **ASSOCIATION**, for a condominium development, shall have the same meaning as "association of co-owners" found in Act No. 59 of the Michigan Public Acts of 1978, as amended. For a subdivision or other development, association shall mean an association of homeowners or property owners organized as a non-profit corporation, organized as an LLC, PLC, or PC, as defined in HB 4860 and authorized pursuant to deed restrictions and/or restrictive covenants in a particular development to govern the affairs of the subdivision or other development.
- D. **BEST MANAGEMENT PRACTICES (BMP)** means programs, practices, procedures or other directed efforts, initiated and implemented by a user, which can or does lead to the reduction, conservation or minimization of pollutants being introduced into the ecosystem. BMPs include, but are not limited to, equipment technology modifications, process or procedure modifications, reformulation or redesign of products, substitution of raw materials and improvements in housekeeping, maintenance, training, or inventory control and may include technical and economic considerations.
- E. **CERTIFIED OPERATOR** means a contractor or employee licensed by the MDEQ to operate and maintain wastewater systems.
- F. **DEVELOPMENT** shall include a subdivision as defined by Act No. 288 of the Public

Acts of 1967, as amended, a condominium pursuant to the provisions of Act No. 59 of the Public Acts of 1978, as amended, or any group of dwellings or structures that are proposed to be served by a PCWS.

- G. DEVELOPMENT DOCUMENTS** means (a) for a condominium project, the master deed and bylaws provided by Act No. 59 of the Public Acts of 1978, as amended; and (b) for a subdivision or other development, deed restrictions and/or restrictive covenants. The development documents shall also include the final approved site plan.
- H. EXPANSION** shall mean any activity whereby additional structures or users shall be added to an existing PCWS.
- I. MDEQ** means the Michigan Department of Environmental Quality, or its successors.
- J. MUNICIPAL SANITARY SEWERAGE SYSTEM** means a government owned sanitary sewerage system.
- K. OWNER** shall mean the owner of a fee simple interest, a land contract purchaser of property, or the holder of a valid purchase agreement.
- L. PCWS DEVELOPMENT AGREEMENT** means the agreement described in Section 3.1E.4. below.
- M. PLANNED UNIT DEVELOPMENT (PUD)** refers to a type of development authorized by the Michigan Zoning Enabling Act (Public Act 110 of 2006, as amended) and subject to the standards of Article 4.0 (PUD - Planned Unit Development) of the Freedom Township Zoning Ordinance.
- N. PRIVATE COMMUNITY WASTEWATER SYSTEM (PCWS)** means a sanitary sewerage system owned by a non-governmental entity, and which is proposed to service more than one structure. The PCWS shall be deemed to include any individual septic tanks, pumps, lines and appurtenances serving each residence, in addition to the community drainfield and treatment system.
- O. SANITARY SEWERAGE SYSTEM** means a system of pipes and structures including pipes, channels, conduits, manholes, pumping stations, sewage or waste treatment works, diversion and regulatory devices, outfall structures, and appurtenances, collectively or severally, actually used or intended for use by the public for the purpose of collecting, conveying, transporting, treating, or otherwise handling sanitary sewage or other industrial liquid wastes that are adversely affecting public health.
- P. TOWNSHIP** means Freedom Township, Washtenaw County, Michigan, acting through its duly elected Township Board.

SECTION III - REGULATIONS

Section 3.1 - Regulations

- A.** Any development of land that is proposed to be serviced by a PCWS must comply with the provisions of this Ordinance before any building permits may be issued for the development. Except as provided in this Ordinance, a development of land to be served by a PCWS shall not be commenced, and it shall be unlawful to construct, install, or operate a PCWS within the Township in conjunction with any such development unless in conformance with this Ordinance.
- B.** The treated effluent from PCWS shall not be discharged into any surface water.
- C.** Any PCWS shall comply with the terms of this Ordinance and applicable requirements of the Freedom Township Zoning Ordinance, applicable standards of the MDEQ, Michigan Department of Public Health, Washtenaw County Environmental Health Division (WCEHD), Michigan Public Service Commission, Michigan Occupational Safety and Health Administration, and any other applicable laws and regulations of the federal government, State of Michigan, Washtenaw County, and Township.
- D.** No new PCWS or expansion of an existing PCWS shall be constructed, installed, or operated within the Township unless the plans for the installation and system design have been approved by the Township, the WCEHD, the Michigan Department of Public Health, the MDEQ, the Michigan Public Service Commission and any other governmental authority having jurisdiction.
- E.** The following is required and the applicant must provide the required documentation to the Township before approval of a PCWS may be granted:

 - 1. A valid permit for installation of a PCWS issued by the applicable regulatory agencies, MDEQ, Washtenaw County Environmental Health Department, and all other utility authorities.
 - 2. A certification from the PCWS design engineer indicating that the PCWS as designed and constructed will adequately process sanitary sewage and waste as required by applicable laws and regulations of the federal government, State of Michigan, County of Washtenaw, and the Township. The Township Engineer shall review and make a recommendation regarding the adequacy of such certification. The Township Engineer's review shall include review of plans and documents for compliance with Township ordinances, applicable engineering standards, generally acceptable engineering practices, and best management practices.
 - 3. An executed PCWS Maintenance Agreement among the applicant, the owner, the Association, the Township and all other appropriate regulatory agencies, and the properly certified operator, approved by the Township, possessing the required ability to operate, inspect, monitor, maintain, repair, replace and manage the PCWS. The agreement shall contain provisions for:

 - a. Inspection, monitoring, operation, maintenance, repair and replacement of the PCWS;
 - b. Collection of charges for connection to, use and replacement of the PCWS;

- c. Compliance with all applicable governmental laws, ordinances, regulations, Township zoning, and agreements regarding the PCWS; and
- d. The agreement to continue as an irrevocable encumbrance on the land.

The agreement shall provide that it may not be terminated, amended, renewed, revised or substituted for without Township approval. The Township Attorney and Township Engineer shall review the language of the agreement prior to granting of approval of the PCWS by the Township Board.

- 4. An executed PCWS Development Agreement among the applicant, owner, the Association, and the Township in a form acceptable to the Township specifying:
 - a. The party or parties responsible for inspection, monitoring, repairing, replacing, operating and maintaining the PCWS.
 - b. Standards for inspection, monitoring, operation, maintenance, repair and replacement of the PCWS in accordance with guidelines recommended by the PCWS design engineer, PCWS equipment manufacturer, the certified operator, the MDEQ, the WCEHD, best management practices, and other applicable governmental authorities, including the Township. The applicant shall provide the proposed standards to the Township for review and approval. Such standards shall be included in the PCWS development documents. Standards shall include periodic reports to the Township at a frequency decided at the time of the Agreement, and the right of the Township to inspect and compel remediation if these standards are not met.
 - c. Standards for fueling, testing, monitoring, maintenance, and replacement of the PCWS emergency generator and related equipment in accordance with guidelines recommended by the PCWS design engineer and the equipment manufacturer.
 - d. Indemnification of Washtenaw County, Freedom Township and the Township's past, present and future elected officials, representatives, employees, boards, commissions, and designated agents, consultants, and assigns by the applicant, owners and Association, jointly and severally, from any and all loss, liability, costs and expense incurred by the Township and County with respect to inspection, monitoring, operation, maintenance, repair, and replacement of the PCWS, and for failure of or discharges from the PCWS.
 - e. A statement that the applicant, owner and Association shall maintain a policy of casualty insurance for the replacement value of the insurable components of the PCWS and a policy of comprehensive general liability insurance shall be submitted to the Township for review and recommendation by the Township Engineer, prior to acceptance by the Township Board. The policy shall name Washtenaw County, Freedom Township and the Township's past, present and future elected officials,

representatives, employees, boards, commissions, and designated agents, consultants, and assigns as additional insured. The amount, terms, and bond rating of the policy shall be established as part of the PCWS Development Agreement.

- f. A statement that the Township shall have the option in its sole discretion to require that PCWS be abandoned and all properties in the development be connected, at the expense of the owners, to a municipal sanitary sewerage system which may be constructed in the future and is accessible to the development. If a PCWS is required to be abandoned, the costs of environmental remediation are to be borne by the Association.
- g. A statement acknowledging that the Township shall have the option to purchase for the sum of one dollar (\$1.00):
 - (1) Marketable title to the PCWS and any lands required to be titled in the name of the Township by governmental or regulatory requirements; and/or
 - (2) Easements reasonably deemed by the Township to be necessary in conjunction with the PCWS or future publicly owned community wastewater system.
- h. A requirement that a special assessment district to be established as described in Section 3.1J below.
- i. An Operations and Maintenance (O/M) Manual shall be provided prior to final approval of the PCWS. The O/M manual shall include:
 - (1) Standard maintenance requirements, frequency, and worksheets for replacement costs;
 - (2) Five (5) year O/M costs prepared in a format similar to worksheets required for those purposes by the MDEQ Policy for PCWS permitting; and
 - (3) Any additional documentation required by the Township Engineer in accordance with generally accepted engineering standards.
- j. All maintenance records and analysis results shall be maintained at a location and for a specific period of time as determined at the time of the Agreement. Such records shall be available for Township inspection upon request.
- k. An escrow account shall be established with the Township and replenished by the applicant, to cover the cost of the regular inspections of the PCWS performed by Township or its designees. The amount and terms of the

escrow account and the frequency of inspections shall be determined at the time of the Agreement, subject to review and recommendation by the Township Engineer and approval by the Township Board.

5. The PCWS Development Agreement and the development documents, except the final approved site plan, shall be recorded at the office of the Washtenaw County Register of Deeds after approval by the Township. The development documents, as they pertain to the PCWS, shall not be changed without written Township approval and shall contain language to that effect.
6. The provisions of the PCWS Development Agreement described above and other obligations of the Association set forth in this Ordinance shall be included in a separate disclosure document in the form approved by the Township Attorney. The disclosure document shall be delivered to each prospective purchaser of a unit, lot or parcel served by a PCWS prior to the execution of a purchase agreement.
7. Documentation to verify the following conditions:
 - a. Each PCWS shall be included in the common areas of the development. Use of a PCWS to serve a development not contiguous to the PCWS location shall be prohibited.
 - b. The PCWS shall be inspected, monitored, operated, maintained, repaired and replaced by the Association with the right of the Association to assess owners for all such costs including the cost of the annual Township review.
 - c. Each Association shall hire a certified operator approved by the MDEQ, the WCEHD, the Township and other applicable governmental authorities to perform such inspection, monitoring, operation, maintenance, repair and replacement at the expense of the Association, and the Association shall provide the Township annually with copies of the signed agreements with the certified operators.
 - d. Each Association shall maintain a financial reserve sufficient for five (5) years of monitoring, inspection, operation, maintenance and repair of the PCWS and an adequate replacement reserve in the amounts certified by a design engineer or the certified operator and required by applicable governmental authorities and shall be subject to Township review and approval. The certified operator and the Association shall provide the Township with evidence of such reserves annually.
 - e. The developer shall provide proposed rates for the first five (5) years of operations based on the above and any other appropriate costs typically included in utility fee calculations. A projected cash flow analysis showing the assumption of number of connections shall be included, along with anticipated escrow replenishments needed by the developer or the Association to balance the expenses vs. revenues before all lots are on-line, or to maintain the required maintenance and replacement escrows if

necessary.

- f. Until such time as 80% of the proposed dwelling units in the project are occupied, the owner of the development shall assume full responsibility for the operation and maintenance of the PCWS, and shall perform all duties required of the Association.
8. A permanent and irrevocable easement, in recordable form, shall be granted by the applicant, owner and Association to the Township and its employees, agents, and assigns authorizing the Township to enter on the development upon which the PCWS is located for the purpose of inspections and other purposes set forth in this Ordinance. The easement shall be recorded by the owner or developer in the County Register of Deeds office, with a recorded copy provided to the Township. The PCWS shall be maintained so as to be accessible at all times by the Township. No structures or landscaping within the access area shall be allowed that would unreasonably interfere with such access.
- F.** No building permit shall be issued for any structure or development proposed to be served by a PCWS until the Township has approved the PCWS in accordance with terms and provision of this Ordinance and the Planned Unit Development regulations of the Zoning Ordinance.
- G.** The PCWS shall be inspected during construction by an independent engineer or consultant hired by the Township at the applicant's expense to ensure proper system construction and installation, and annually after construction to certify system capacity and function. No underground installation that is backfilled prior to inspection, as-built measurement, documentation, and written approval shall be accepted. Due to the sensitive nature of soil disturbance and placement for maximum percolation and service life, the Township reserves the right to require a new field to be constructed in another location if backfill occurs prior to the above acceptance requirements.
- H.** Anything in this Ordinance to the contrary notwithstanding, the Township shall not be responsible for or obligated to perform any needed or desired repairs, maintenance, improvement, and/or replacement of the PCWS or any portion thereof.
- I.** The applicant, current and future owners of property proposed to be served by the PCWS, and the Association shall adhere to the operational and maintenance requirements of this Ordinance. The certified operator and the Association shall furnish operating and maintenance reports in accordance with the applicable operation and maintenance requirements. All such requirements shall be made a part of the PCWS Development Agreement and development documents.
- J.** Prior to recording the development documents and sale of any unit, lot or parcel served by a PCWS, applicant and owner shall establish a special assessment district for the development. The purpose of the special assessment district shall be to provide for assessment of the units, lots or parcels by the Township for the costs of inspection, monitoring, maintenance, repair, operation or replacement of the PCWS in the event the Association shall fail to properly perform such work, or in the event the Township takes control of the PCWS.

- K.** The operator, the applicant, the Association and the individual owners and users of the PCWS shall be responsible for all costs associated with the installation, operation, monitoring, inspection, maintenance, repair, replacement of the PCWS and all liability associated with the PCWS. The Township may, at its option, elect to collect all costs it may incur in connection with the PCWS pursuant to the provisions of this Ordinance by a special assessment described above, and by direct court action against the applicant, the operator, the Association, owners, and/or users of the PCWS.
- L.** Under no circumstances shall the Association accept responsibility for operation and maintenance of the system until such time as 80% of the proposed dwelling units in the project are occupied. Prior to that time the owner of the development shall assume full responsibility for the operation and maintenance of system.
- M.** A complete copy of the as-built drawings and documents, including electric, water, chemical, and physical systems, drain fields and final topography, shall be provided to the Township upon completion of the PCWS, and before it is approved for operation.
- N.** No user of a PCWS shall contribute or cause to be contributed, directly or indirectly, any substance, pollutant or wastewater that will pass through the PCWS untreated or interfere with the operation or performance of the PCWS.

SECTION IV - SITE PLAN STANDARDS

Section 4.1 – Development Information

The following is required and the applicant shall submit documentation supporting each requirement as part of an application for approval of a development served by a PCWS:

- A.** A PCWS Vicinity Map showing the proposed treatment system and the development in relationship to prominent geographical features such as roads, rivers, streams, lakes, individual homes and other subdivisions or uses. The following is required and must be shown on the PCWS Vicinity Map:

 - 1. The map shall show all of the above features that are located within one (1) mile of the proposed treatment system.
 - 2. The PCWS shall be sited in such a way to discourage foot traffic, park use, future illegal landscaping or fill by adjacent residents. The PCWS shall be also sited in such a way to minimize impacts to existing and future homes.
 - 3. The locations of and distances from nearby wells, existing and future structures, drains, water mains, or other utilities. The required minimum buffer from the boundaries of the development to the wastewater treatment component shall be 500 feet. On-site dwellings shall be buffered from any portion of the PCWS disposal area or pump station by a minimum distance of isolation of 100 feet, or greater

distance as required by the appropriate regulatory agency.

4. The locations of and distances to nearby surface water, wetlands, or floodplain. A minimum PCWS setback of 100 feet from established wetlands shall be required. A larger setback may be required by the Township where recommended by the Township Engineer after review of the PCWS specifications, manufacturer's recommendations, and the results of a hydrogeological assessment. No PCWS may be located within the 100-year floodplain or wetlands.
- B.** PCWS Detail Sheet(s) with an accurate legal description of the boundaries of the development and the treatment system site. The entire development and treatment system site must be topographically mapped on the PCWS Detail Sheet(s) with a maximum contour interval of two feet. The legal description and topographic map must be prepared under the direction of a licensed professional surveyor. The PCWS Detail Sheet(s) must be accurate and to a scale of no more than 100 feet to one (1) inch. The following is required and must be shown on the PCWS Detail Sheet(s):
1. The major components of the proposed PCWS, including pump stations, tanks, treatment units, drainfields, buildings, and other significant items.
 2. The means of vehicle access to the PCWS. Provide at least one (1) paved access drive at least 10 feet wide for year round access. Provide paved parking and turnaround area adequate for maintenance vehicles. Buried utilities shall be a minimum of 10 feet from the edge of pavement.
 3. The method of stormwater management, flow arrows for the direction of stormwater runoff, and points of discharge from the development. The drain field and reserve field shall be crowned, and shall not receive any drainage runoff or be used for collection.
 4. The source of water supply and its isolation from the proposed treatment and disposal system.
- C.** A Hydrogeological Assessment shall be required showing the location of soil borings or test pits with attached soil boring logs and results; and describing the nature of subsurface soils in the development and treatment system areas, including but not limited to depth to groundwater, permeable strata, and confining layers.
1. Calculations sealed by a licensed professional engineer specializing in groundwater modeling and/or soils transmissivity shall be required to demonstrate that there will be no adverse impacts from the PCWS discharge within the underground absorption area.
 2. If the floodplain of the nearby water body or watercourse has not been established and there is reasonable doubt about potential conflict, the developer's engineer shall provide a hydraulic analysis establishing the 100-year flood elevations subject to the review and approval of the Township and Washtenaw County Drain Commissioner.

3. Indicate the direction of groundwater flow.

Section 4.2 – PCWS Approval

The PCWS design and PCWS development agreement shall be subject to review and approval by the Township Board, after necessary technical reviews by designated Township officials and consultants, and after review and recommendation by the Planning Commission. The review process for a PCWS shall take place in conjunction with and not separate from the applicable development approval process of the Freedom Township Zoning Ordinance.

Section 4.3 – Compliance Required

In addition to the standards of this Ordinance, the PCWS development project shall comply with all applicable development and site plan requirements of the Freedom Township Zoning Ordinance.

SECTION V - SELECTION OF TREATMENT SYSTEM

Section 5.1 –Treatment System Standards

- A. The PCWS must be capable of achieving consistent levels of secondary treatment. Secondary treatment objectives include the following parameters, measured at the point of discharge of treated effluent:

| Parameter | Measurement | Notes |
|------------------------------------|---------------------|----------------|
| Biological oxygen demand (BOD) | 20 mg/l or less | 30 day average |
| Total suspended solids (TSS) | 20 mg/l or less | 30 day average |
| Total Nitrogen (N) | 25 mg/l or less | 30 day average |
| Total Phosphorus (P) | 25 mg/l or less | 30 day average |
| Mercury | not detectable | not averaged |
| Polychlorinated biphenyl (PCB) | not detectable | not averaged |
| pH Factor (acidity-alkalinity) | between 6.0 and 8.0 | 30 day average |
| mg/l = milligrams per liter | | |

- B. The PCWS shall be designed with ease of access, maintenance and operation in mind. The Township reserves the right to retain a qualified wastewater system operator, and a Qualified Township Consultant, at the applicant's expense to review the plans and suggest modifications to the design, layout, or operation of the system.
- C. The concepts of wastewater pretreatment currently accepted by the Township are listed below:
 1. The concept of an “Advantex” system, and/or any additional advanced treatment processes, will be considered for approval on a case-by-case basis. The Township Engineer may require additional details and specifications for any proposed system to ensure that it will meet or exceed the requirements of this Ordinance and generally acceptable engineering standards.

2. Additional concepts and/or alternative designs that would meet or exceed the standards of this Ordinance may be submitted to the Township for consideration. All review procedures will incorporate input from the Michigan Department of Environmental Quality (MDEQ), Washtenaw County Environmental Health Division, and the Township.

SECTION VI - BASIC DESIGN CRITERIA

Section 6.1 – PCWS Design Criteria

Design of the PCWS shall be performed under the direct supervision of a qualified professional engineer licensed to practice in the State of Michigan. The engineer shall have experience in the design of a PCWS. Upon request of the Township, the engineer shall provide a list of similar projects designed by the engineer, including location, size, construction cost, contact names, and telephone numbers.

- A. A PCWS designed under these guidelines is meant only for wastewater characteristics of residential users. Typical values of raw wastewater to be used for calculating loads for treatment processes include the following:

| Parameter | Measurement |
|------------------------------------|---------------------|
| Biological oxygen demand (BOD) | 250 mg/l |
| Total suspended solids (TSS) | 210 mg/l |
| Ammonia | 25 mg/l |
| Total Nitrogen (N) | 50 mg/l |
| Total Phosphorus (P) | 7 mg/l |
| Oil and grease | 90 mg/l |
| pH Factor (acidity-alkalinity) | between 6.0 and 8.0 |
| mg/l = milligrams per liter | |

- B. In the absence of actual flow data, the design shall be based upon the definition of one (1) Residential Equivalent Unit (REU) equaling a minimum of 350 gallons per day.
- C. Design of the PCWS shall be limited to a maximum of 20,000 gallons per day.
- D. PCWS shall include the following components:
 1. Septic tanks with effluent filters.
 2. Recirculation and/or surge tanks.
 3. Options to by-pass certain components in order to accommodate the daily flows under conditions requiring service and/or repair.
 4. Piping

5. All pumps including, if non-gravity systems are proposed, individual residential pumps.
- E.** Design the PCWS for a service life of at least 20 years.
- F.** Design the PCWS for expansion at each phase of the approved development with a minimum of interruption of normal operation.
- G.** Design of the PCWS shall permit ease of expansion by approved development phase, and ultimate connection to a municipal sanitary sewer. Measures to accomplish this may include blind tees, plugs, stubs, and sleeves placed strategically to allow for future connection to a municipal system.
- H.** To keep the PCWS operational during times of routine maintenance and/or repair, the treatment components shall be compartmentalized to allow for manual alternation of components, where possible.
- I.** All units within a proposed development containing a PCWS shall be connected to the PCWS.
- J.** The minimum number of homes connected to a PCWS shall be 20.
- K.** Prepare a basis of design showing flow calculations, dosing rates, pump and tank sizing, timer settings, and other key parameters. Include an estimate of the time available for operator response under high water alarm conditions.
- L.** Design piping to allow for flushing, draining, repairing, and other maintenance activities.
- M.** Provide adequate lifting and handling devices for heavy or awkward components of the system.
- N.** Provide gasketed aluminum access hatches to control odors.
- O.** Gravity flow piping in and around tanks, up to the distribution piping at the drainfield, shall be PVC Schedule 80 with solvent weld connections. Glued connections shall not be permitted. All fittings shall be PVC Schedule 80.
- P.** Subsequent to a review of the overall data submitted, the Township may require the installation of groundwater observation wells around the disposal area. If the wells are required, the following criteria shall apply:
1. A minimum of three (3) wells shall be triangulated around the final disposal area with the exact locations jointly determined by the design engineer and the Township.
 2. The wells shall be a minimum of two-inch (2") diameter and properly screened at the depth of the receiving aquifer.
 3. Each well shall be equipped with a latchable cap.

4. The Township shall establish sampling frequency and parameters on a case-by-case basis.
- Q.** Slope paved surfaces a minimum of one percent (1%) and a maximum of three percent (3%).
- R.** Landscaped or grassed areas that require periodic mowing may be sloped up to a maximum of one (1) foot vertical to six (6) feet horizontal.
- S.** All elevations within the area of any component of the wastewater system shall be graded so as to promote runoff away from the system to a designated drainage area.
- T.** At the discretion of the Township, the reserve area shall be required to be prepared. The extent of preparation shall be subject to the following items:
1. Future availability of municipal sewer.
 2. Overall site grading and/or clearing.
 3. Depth and accessibility of proposed excavation.
 4. Conditions observed during construction, inspection, or other field investigation that vary from design assumptions, such as lack of uniform subsurface soil conditions, location of groundwater, percolation, construction methods especially those resulting in “smearing”, or any other conditions or factors that are suspected to impact the optimal performance of the design, as described in the Michigan Criteria for Subsurface Sewage Disposal, or other generally accepted publications regarding field conditions or other factors that may affect performance or service life.
- U.** Install, inspect, and maintain all soil erosion and sedimentation control measures as required by the Township and any other regulatory agency with jurisdiction.
- V.** The reserve tile field area shall be graded to provide for a maximum slope of one (1) foot vertical for every six (6) feet horizontal within the defined boundary.
- W.** Sources of salt or other chemical compounds such as pavement de-icing runoff or other sources shall not be directed toward the surface or subsurface of the drain field, reserve field, or PCWS system components. Dwellings served by water softeners shall be subject to the following:
1. Recharge water from residential water softeners shall not be discharged into the PCWS.
 2. Dwellings served by water softeners shall be plumbed with separate drainage and discharge facilities for recharge water from water softeners to ensure proper function of the PCWS over its entire service life.

3. Separate discharge facilities for recharge water from water softeners shall be subject to any required permits or approvals from the Washtenaw County Environmental Health Division and other agencies with jurisdiction.
- X.** The Township's goal is to maximize gravity systems. Where topographical constraints do not allow for all-gravity collection systems, the following standards shall apply:
1. Collection systems that require pumping shall include the least number of pumping or lift stations feasible.
 2. Any request to install more pumps than deemed reasonable by the Township Engineer shall be accompanied by a detailed analysis of costs for the entire service life of the collection system, demonstrating no appreciable increase in cost to the user for the entire service life.
- Y.** The PCWS shall have a fully automatic emergency generator, capable of operating the entire system in such a manner that no untreated material shall be discharged.

SECTION VII - FEES, PENALTIES, AND ENFORCEMENT

Section 7.1- Fees

- A. Applications.** Applications for a development that includes a PCWS under this Ordinance shall be accompanied by a non-refundable administrative application fee in addition to any other required fees and in an amount set by resolution of the Township Board. In addition, an applicant shall pay an additional escrow fee in an amount determined by resolution of the Township Board for the estimated cost of outside consultant(s) who may be retained by the Township in connection with the Township's review of materials and documents related to the proposed PCWS.
1. In the event the cost of the services of the consultant(s) is less than the escrow fee, the applicant shall be refunded the balance.
 2. In the event the cost of the services of the consultant(s) exceeds the amount of the escrow fee, the applicant shall pay the deficiency to the Township prior to the approval of the development under this Ordinance or the Freedom Township Zoning Ordinance.
 3. A denial of an application for a permit shall not affect the applicant's obligation to pay the application or escrow fee provided for in this Section.
- B. Inspections.** An inspection escrow account shall be established as part of the PCWS Development Agreement to cover the cost of the regular inspections of the PCWS performed by Township or its designees. The owner of the development and the Association shall maintain the minimum amount of the escrow account and shall permit Township inspection of the PCWS as required by the PCWS Development Agreement.

Section 7.2 – Penalties, Enforcement, and Notice

The Association or any owner of the development or other person who violates this Ordinance is responsible for a municipal civil infraction. Each day that a violation is permitted to exist shall constitute a separate offense. The rights and remedies provided herein are cumulative and in addition to other remedies provided by law, including but not limited to equitable relief in district court pursuant to MCL 600.8302.

- A. **Enforcement.** The Freedom Township Supervisor shall be responsible for enforcing this Ordinance. Except for the issuance of citations, the Supervisor may delegate the actual enforcement of the provisions of this Ordinance to other Township officials and personnel. For the issuance of citations, the Freedom Township Supervisor, the Freedom Township Zoning Inspector, any Washtenaw County Sheriff's Deputy, and any Freedom Township Constable or Ordinance Enforcement Officer are authorized to issue citations as an "authorized local official" pursuant to MCL 600.8707.
- B. **Civil infraction citations.** Citations shall be personally served by an authorized local official on the alleged violator, or may be served upon the Association or an owner of the development by posting a copy of the citation on the land or attaching the copy to the structure and by sending a copy by first-class mail to the Association, owner or person at the last known mailing address.
- C. **Penalties.** The fine for violation of any provision of this Ordinance shall be \$500.00. In addition, each person who violates this Ordinance shall be summarily taxed the costs of the action, which are not limited to the costs taxable in ordinary civil infraction actions and may include all expenses, direct and indirect, to which Freedom Township has been put in connection with the municipal civil infraction, up to the entry of judgment. Costs of not more than \$500.00 shall be ordered. Except as otherwise provided by law, costs shall be payable to the general fund of Freedom Township.
- D. **Other civil remedies.** The provisions of this Ordinance shall also be enforceable through any and all other remedies at law or in equity in any court of competent jurisdiction.
 - 1. **Injunction.** Any activity conducted in violation of this Ordinance, MDEQ regulations and requirements, Washtenaw County Environmental Health Division regulations, or that is contrary to any permit issued by MDEQ and/or the Washtenaw County Environmental Health Division is declared to be a nuisance per se. The Township may commence a civil suit in any court of competent jurisdiction for an order abating or enjoining the violation, and/or requiring restoration of the property as nearly as possible to its condition before the violation.
 - 2. **Stop-Work Order.** The Township may also issue a stop-work order until the provisions of this Ordinance have been met. Failure to obey a stop-work order shall constitute a violation of this Ordinance. The Township may also request that the County withhold issuance of a certificate of occupancy, building permit or inspection until the provisions of this Ordinance have been met.
- E. In the event of a malfunction of the PCWS such that untreated or excess water is discharged, the operator shall notify the Township immediately.

SECTION VIII - ORDINANCE CONFLICT

Section 8.1- Consistency with State Regulations and Statutes

Nothing in this Ordinance shall be interpreted to conflict with present or future state statutes in the same subject matter; conflicting provisions of this Ordinance shall be abrogated to, but only to, the extent of the conflict. Moreover, the provisions of this Ordinance shall be construed, if possible, to be consistent with relevant state regulations and statutes.

Section 8.2- Severability

If any part of this Ordinance is found to be invalid or unconstitutional by any court of competent jurisdiction, such portion shall be deemed a separate, distinct and independent provision. Such holding shall not affect the validity of the remaining portions of this Ordinance, which shall remain in force.

Section 8.3- Continuation of Proceedings

Rights and duties that have matured, penalties that have been incurred, proceedings that have begun and prosecutions for violations of law occurring before the effective date of this Ordinance are not affected or abated by this Ordinance.

Effective Date

This Ordinance shall take full force and effect thirty (30) calendar days following final publication of said ordinance.

Certification

I, Jennifer Alexa, Clerk of Freedom Township, do hereby certify that the foregoing is a true and correct copy of an ordinance adopted for final reading by the Freedom Township Board of Trustees at a regular meeting on January 8, 2008.

Jennifer Alexa, Clerk