TOWNSHIP OF HARMONY COUNTY OF WARREN ORDINANCE NO. 03-06

ANAN ORDINANCE CREATING A NEW CHAPTER 185 OF THETHE CODE OF THE TOWNSHIP OF HARMONY TO BE ENTITLED WATER SUPPLY

BEBE IT ORDAINED by the Township Committee by the Township Committee oby the Township of off Warren and State of New Jersey, that Chapter 185 entitled Water Supplies, Individual and Semipublic is hereby deleted in its entirety and replaced with the following new provisions:

§ 185-1. PURPOSE AND AUTHORITY

- A. <u>BasisBasis for Ordinance</u>. I. It is been established in previous studies of ground water supplysupply in Harmony Township that a safe, sustainable supply in Harmony Township that a Township's residences and businesses is limited by the facts that:
 - (1) The Township's ground-water supply is devThe Township's ground-water suppl
 - (2) TheseThese sole-source aquifers are a limiThese sole-source aquifers are resource with limited wastewater assimilation capability.
- B. <u>PurposePurpose of Ordinance</u>. The purpose of this. The purpose of this . The purpose development of thdevelopment of the Todevelopment of the Township occurs protection protection of a safe and adequate water supply for existiprotection of a safe ar residences and businesses. This Ordinance is intended:
 - (1) To protect the Township's water supply for all residents;
 - (2) ToTo ensTo ensurTo ensure that new wells constructed in Harmony ToTownsTownshipTownship will yield a sufficient rate of water which will meet accepted standards of water quality;
 - (3) ToTo ensure that the pumping of newTo ensure that the pumping of significantlysignificantly impact the performance of existing welsignificantly imperfectiveness of wastewater disposal systems;

- (4) ToTo collect data and information aTo collect data and information aboTo resources resources of Harmony Township in order to determine the potential potential and limits of ground water supplies for exist potential and lin and new uses; and
- OccupancyOccupancy (CO) or the issuance of a Continuing CeCertificateCertificate of Occupancy (CCO), any well regulatCertificate hereunderhereunder phereunder provhereunder providing water for human cons realtyrealty improvement shall be given, at a minimum,realty improvement shall and and bacteriological test and to assure that a cand bacteriological test and analyticalanalytical report shall be made availanalytical report shall be made availanalytic

§ 185-2. REFERENCE STANDARDS

The following standards and codes are incorporated and adopted herein by reference:

- A. AA code regulating the location, construction, alteration, use anA code regulating the location individual individual and semipublic water supplies; requiring certain pindividual and semipublic thethe inspection the inspection of such sthe inspection of such supplies and the fixing of penaltiespenalties for vipenalties for violationspenalties for violations is hereby adopted pursua 26:3-69.126:3-69.1 to 26:3-69.6). A copy of said code is annexed hereto and made a part hereof without inclusion of the text thereof herein. Said code estaSaid code establiSaid coadoptedadopted by this Chapter is described and commonly knadopted by this Chapter is described SemipublicSemipublic Water Supply Code of New Jersey (1966)." Three Three (3) coThree (3) InIndividualIndividual and Semipublic Water Supply Code of New Jersey (1966) placedplaced oplaced on file in the Office of the Secretary of the Board of Health uponplace introduction introduction of this Chapter and will remain on file in saidintroduction of this Chapter and will remain on file in saidintroduction of this Chapter and will remain on file in saidintroduction of this Chapter and will remain on file in saidintroduction of this Chapter and will remain on file in saidintroduction of this Chapter and will remain on file in saidintroduction of this Chapter and will remain on file in saidintroduction of this Chapter and will remain on file in saidintroduction of this Chapter and will remain on file in saidintroduction of this Chapter and will remain on file in saidintroduction of this Chapter and will remain on file in saidintroduction of this Chapter and will remain on file in saidintroduction of this Chapter and will remain on file in saidintroduction of this Chapter and will remain on file in saidintroduction of this Chapter and will remain on file in saidintroduction of this Chapter and will remain on file in saidintroduction of this Chapter and will remain on file in saidintroduction of this Chapter and will remain on file in saidintroduction of this Chapter a
- B. The The standards of the <u>Realty Improvement and Sewerage and Facilities Act</u>, N.J.S.A.N.J.S.A. 58:11-23 *et seq.*, and of the <u>Safe Drinking Watesafe Drinking Water Act</u>, N.J., *etet seq.*, and of regulations promulgated thereunder are incorporated he., and of regulation reference and shall constitute minimum standards.
- C. InIn the case of conflict between the ciIn the case of conflict between the cited statuIn t stringent standards shall govern.

§ 185-3. <u>DEFINITIONS</u>

A. <u>Alteration</u>. AnyAny physical change in a well, including without limitation, deepening, modification modification or removal such that there will be a change in its size, construction, configuration or installator installation, or an increase in the pumping capacity of the well. "Alter" shall be construed

accordingly. Specificacordingly. Specificacordingly. Specifically excluded from this definition is installation of pitless adapters.

- B. <u>Available Drawdown</u>. The distant The distance between The distance between static-water above above the pump intabove the pump intake level, above the pump intake level, as measure casing).
- C. <u>Bedroom</u>. AnyAny room within aAny room within a dwelAny room within a dwelling unit maymay may reasonably be expected to provide sleeping quarters for one (1) or more ppersonpersons. The term "bedroom" shall be considered in the absence of any evidence toto the control the contrary to include any room on the second or third floor, and any room oto thethe first floor which has no through the first floor which has specifically specifically consequences a common living dining, dining, or living rooms. The term "bedroom" shall incdining, or living rooms. The term within an expansion attic.
- D. <u>Certification</u>. AA written statement by the BA written statement by the Board of HA written forfor the realty improvement is in compliancefor the realty improvement in compliancefor the realty improvement is in compliancefor the realty improvement in compliancefor the realty imp
- E. <u>Constant Head Test</u>. AA pumping test of thA pumping test of the well in question, conducted the water level (pumping level) remains constant over the test duration.
- F. <u>Constant Rate Test.</u> AA pumping test of the wA pumping test of the well in question, cond the discharge rate remains constant over the test duration.
- G. <u>Construct A Well</u>. The The drilling, buThe drilling, building, as groundground water supply system or the enlargement of any existing ground water supply system by alteration to the existing system.
- H. <u>Drawdown</u>. The The distance between the static water level and the declining water level in a well, due to the pumping of the subject well or a nearby well.
- I. <u>Interference</u>. The The amount of drawdown on an obseThe amount of drawdown on an obsethe commencement of pumpage from a nearby well.
- J. <u>Interference Test.</u> AA A pumping test conducted to deA pumping test conducted to de effectseffects on one effects on one (1effects on one (1) or more selected observation wells, resubject well.

- K. <u>Observation Well</u>. AA well utilized to obtain wA well utilized to obtain water level meas existing residential supply well).
- L. <u>Monitor Well</u>. A well in A well installed specifically for the purpose A well installed resource and quality assessments (i.e., non-supply well).
- M. <u>Peak Demand Rate</u>. The The average pumping rate of water The average pumping rate of wat in gallons per minute (gpm), during peak demand periods.
- N. <u>Peak Demand Test.</u> AA pumpiA pumping test conducted to A pumping test conducted to de cancan supply the water needed by the realty improvemean supply the water needed by the water demand.
- O. <u>Peak Demand Time</u>. The The duration The duration of time, in minutes, during which The demanddemand rate is exerted on a well and is the time to a well and is gallons) divided by the peak demand rate (measured in gpm).
- P. <u>Peak Demand Load</u>. The The total volume of total volume of water, in gallons, require period of peak demand.
- Q. <u>Potable Water</u>. Any water used or intended to be used for dr Any water used or intended purposes.
- R. Qualified Hydrogeological Professional. AnyAny person who hasAny person who has baccalaureate or post-graduate degree in Hydrogeology, Geohydrology, Geology, EngEngineeringEngineering or Soil Science and has at least five (5) years of appropriat professional experience in ground waterprofessional experience in ground water hprofessional test plan and/or hydrogeologic report shall be required to submit evidence of the associated qualified hydrogeological professional.
- S. <u>Realty Improvement</u>. AnyAny eAny existing or proposed building or modificationAny existing thethe useful occupancy of which requires a water supplythe useful occupancy of which requires in a multiple dwelling shall be construed to be a separate realty improvement.
- T. <u>Repair</u>. To fix, refurbish or repla To fix, refurbish or replace one (1) or To fix
- U. <u>Replacement Well</u>. AnyAny wAny well intended to replace aAny well intended to replace existing existing well no longer prexisting well no longer produces an according replacement replacement well is not a supplemental well instreplacement well is not a supplement for a given realty improvement.

- V. <u>ResidualResidual Available Drawdown</u>. The distance between. The distance between the pinin a well and ten (10) feet above the puin a well and ten (10) feet above the pump intain a well from the same datum (e.g., top of well casing) and measured at a specific time.
- W. <u>Static Water Level</u>. The The water level in the The water level in the well either before or The when when all local pumping effects on the aquifer have dissipated and thwhen all local pumping surface in the well is in equilibrium with atmospheric pressure.
- X. <u>Test Well</u>. AA well useA well used to prove ground water supply developmentA well used SaidSaid well may be constructed in a manner which aSaid well may be constructed in a manner as a ground water supply if so approved.
- Y. <u>Well</u>. AA man-made excavation that derives water from the fracturesA man-made exinterstices of the rocks or soils which it taps.
- Z. <u>Well Construction</u>. Undertaking t Undertaking the activit Undertaking the activities as defi Well hereinabove.

<u>WellWell Recovery.</u> The. The flow of ground water into a well from the aquifer following

- the cessation of pumping and the corresponding rise of the water level in the well.
- BB. <u>WellWell Test Plan</u>. The plan of well testing proposed by an applicant submitted for approval by the Board of Health prior to the testing prescribed by this Chapter.
- CC. <u>Well Yield</u>. The The maximum rate at wh The maximum rate at which water The maximum rate

§ 185-4. WELL PERMITS

AA.

NoNo peNo person shall locate, construct or alter any water supply until a license or permit for the location, construction or alteration of said water supply has been issued by the Board of Health.

- A. The The Board of Health may issue a license or permit if an application for the Board iisis accis accompanied by a Certificate made by an engineer licensed to practice professional professional engineering in New Jersey stating that the design oprofessional engineer as proposed is in compliance with the code.
- B. AA State well permA State well permit shall bA State well permit shall be a prerequisite to the the Board of Health under the tethe Board of Health under the terms of the Board of construct, construct, replace or alter any well within Harmony Townshiconstruct, replace or alter the location, cothe location, constthe location, construction or alteration of such well has been of Health. Repairs require well permits from the Board of Health.

§ 185-5. WELL CERTIFICATION

PriorPrior to use, all new or altered wellPrior to use, all new or altered wells constPrior to use, all new or and approved by the Board of Health. Certification shall be continand approved by the Board of Health conclusion conclusion of all well testing prescribconclusion of all well testing bebe approved by the Board of Health may be conducted only after such approval. All well to results must be satisfactory to the Board of Health.

- A. NewNew water supplies shall notNew water supplies shall not be placed New water supplies buildings buildings or additions thereto be sold orbuildings or additions thereto be sold or o supplysupply for water until the Board of Healthsupply for water until the Board of I indindicindicating indicating that said water supply has been located and constructed in complia withwith the terms of the license or permit issued andwith the terms of the license or aforesaidaforesaid code. Issuance of such Certificate an existing water supply.
- B. The Board of Healt The Board of Health may issue such a Certificate if The Board of practice professional engineering in New Jersey submits a statement, in writing, signedsigned by him to this gned by him to the Board of Health that said water supply h constructed constructed in accordance constructed in accordance with requirements of the aforesaid code.

§ 185-6. <u>APPLICABILITY</u>

- 1. The The reThe requirements contained in this Chapter are applicable to all new w construction construction and to all alteration and to all alterations of econstruction and require application to the Board of Health for the following:
 - (1) CertificationCertification and appCertification and approval ofCertification and realty improvements they are intended to serve;
 - (2) CertificationCertification and approval of a water supplyCertification and issuanceissuance of construction peissuance of construction perissuance of concapacity of existing systems;
- B. AllAll applications shall be madAll applications shall be madeAll applications shall be made shallshall include all the data as specified by this Chapter and by N.J.A.C. 7:10-12.1 *et seq* and N.J.A.C 7:9D *et seq*.
- C. AllAll applications, shall include a plot plan (with an approximate scale) showing the locationlocation measured from at least two (2) property or main structurlocation measured from newnew wells, all pre-existing wells, all existnew wells, all pre-existing wells, all existing substructed testest points (e.g., percolation test pits) for potential subsurface disposal areas. All ideidentified pre-existing wells and existing subsurface disposal areas shall include thosethose on adjoining properties thathose on adjoining properties that are those on adjoining properties.

subjectsubject property. Such applications shall alsubject property. Such applications shall also of all new wells of all new wells as recorded in properly executed Form DW Record," as issued by the New Jersey Department of Environmental Protection.

D. The The forthe foregoing notwithstanding, the requirements of this Chapter shall not apply to anyany new construction for which a consany new construction for which a consany new ceffective feetive date of this Chapter aneffective date of this Chapter and shall not effective date the purpose of merger or boundary adjustment.

§ 185-7. WELL TEST REQUIREMENTS

2. Existing Residential Realty Improvements

- (1) CapacityCapacity of well noCapacity of well notCapacity of well not increased replacementerplacement welreplacement wells for existing residential units re HealthHealth approval of potability tests in accordance withHealth approval of pota 7:10-12.30.
- CapacityCapacity of well to be increased. Capacity of well to be increased. ICapa ttestintestingtesting required in §185-7A(1) above, the results of peak demand teststests, tests, as required in accordance with §185-10C of this Chapter, shallshall be approved by the Board shall be approved by the Board of Health ishall be capacity of the well is to be increased.
 - (a) IncreaseIncrease due to an increase in living space. In those casescases where the capaccases where the capacity cases where the capacity capacity cases where the capacity cases where the capacity capacity capacity capacity capacity capacity

Minimum volume per dwelling unit
Minimum volume per apartment unit
Volume first bedroom

Volume each additional bedroom

350 gal/day
200 gal/day
150 gal/day

(b) IncreaseIncrease due to an increase non-living space generatedgenerated demangenerated demand.generated demand. In those capacitycapacity of the well is to be increased by less than twentytwenty (20% twenty (20%) perctwenty (20%) percent, no peak demand test required.required. For the purposes of calcurequired. For the purpose existing flows, the volumes set forth in (a) above

thatthat are to be used in determining all living space relatedrelated related demrelated demand and the actual projected demand for otherother uses shall be determined in aother uses shall be determined acceptable by the Board of Health.

3. <u>Existing Undeveloped Lots</u>

- (1) NoNo construction permit shall be No construction permit shall be isNo construction proposed proposed on an existing lot until the well to serve tproposed on an existing lot certified.certified. The well must fulfill the requicertified. The well must fulfill the welwellwell test plan and the pump tests described in §185-10 of185-10 of thi185-Chapter.Chapter. For those lots to Chapter. For those lots to be develChapter. For those livingliving space usage, the pump tests mliving space usage, the pump tests may be proposed proposed well is located the following distance from all adproposed well is lowells and the well is demons (5) gallons per minute.
- (2) The The foll The following minimum separation distances from existing wells and and septic systems on neighboring propeand septic systems on neighboring proper thethe selection of locations for nthe selection of locations for new resithe selection of locations for new resithe selection of locations for new residual selection selection selection selection selec

Tapped Aquifer	Minimum Separation Distance In Feet For Rates Of 5 gpm Or Less	Minimum Separation Distance In Feet For Rates Of Greater Than 5 gpm and Equal To Or Less Than 10 gpm
Overburden	140	190
Crystalline Bedrock	240	270
Carbonate Bedrock	240	270

- 4. <u>MinorMinor Subdivisions and Minor Site Plans</u>. A minor subdivi. A minor subdivision applicationapplication shall include a application shall include a well tesapplication shall include welwellwell test plan shall include the information and data specified in §185-8(1),185-8(1), (3) and (6).
- D. <u>MajorMajor Subdivisions Major Subdivisions and SitMajor Subdivisions and Site Plasubdivisions and preliminary site plan approvsubdivision and preliminary site plan reportreport specified in §185-8, prepared by a qualified hydrogeological professional, and and shall include the results of puand shall include the results of pumand shall include the</u>

wellwell test plan shall be approved by the Board of Health before such tests are conducted.conducted. In connection with the well tests, the applicaconducted. In connection necessary, necessary, a monitor well or wells in accordance with the approved well tnecessary, a OneOne (1) or more existing wells (e.g., adjoining proOne (1) or more existing wells (e.g., a maymay be used as observation wells may be used as observation wells inmay be used as observation wells inmay be used as observation wells in the respective distance.

InIn the event that the well in the event that the well in In the event that the well in question proposed proposed major subdivision, then each additional (either supplemental or individual) individual) well mayindividual) well may be required by the Board of He inin §185-10 185-10 and 11, before the subdivision is approved. Such decision by the BoaBoardBoard of Health will be contingent upon the lot configuration and hydrogeologiBoard variability of the proposed subdivision.

§ 185-8. <u>HYDROGEOLOGIC REPORT</u>

- A. AA hydrogeologic report for the proposed developmeA hydrogeologic report for the proposed DD shaD shall be prepared by a qualified hydrogeological professional, provided to the Board of Health and initial homeowner, and shall include:
 - (1) AA discussion of the hydrogeology of the site and the environsenvirons affecting or being aenvirons affecting or being affectedenviron the location of any potential fractures or faults;
 - (2) The The location and construction specifications for the proposed wells and subsurface disposal systems;
 - (3) The The location of all active or a The location of all active or aband The areas areas and the location of all soil teareas and the location of all subsursubsurfaces ubsurface disposal areas within the subdivissubsurface boundaries;
 - (4) ResultsResults of the tests described in §185-10 and §185-11 of thisthis Chapter. At a minimum, subject wells must his Chapter. At a minimum for yield, drawdown and recovery;
 - (5) The The subject test well shall be tested, at a minimum, for for nitrate and bactfor nitrate and bacteria for nitrate and concentrations, concentrations, if any, to plan for the proper concentrations, if any the subsurface disposal system; and

- (6) AA summary projection of the hydrogeological summary projection of including including nitrate including nitrate and bacteria as described bebe caused by the proposed summary projection of including including nitrate including nitrate and bacteria as described bebe caused by the proposed see caused by the proposed measuresmeasures that will be employed to minimeasures that will be impacts on the underlying aquifer(s).
- B. AsAs a basis for the required study, an adequate number of wells (e.g., monitor, observation) shall be utilized be utilized be utilized be utilized. wellswells must be indicated on a well test plan approved by the wells must be indicated on a we to their installation.
- C. ToTo be considered adequate, the number and locaTo be considered adequate, the number addressaddress at a minimum each of the identified grounddress at a minimum each of the intended intended to be used as a water supply, and the possibility of interferintended to be exiexisting existing wells and wastewater disposal systems on immediately neighborinexist properties.

§ 185-9. <u>RELATED TECHNICAL REQUIREMENTS</u>

AllAll wells conAll wells constrall wells constructed within Harmony Township shall conform to the construction of non-public and non-commuconstruction of non-public and non-community well that:

- 1. WellWell casings shall extend to a minimuWell casings shall extend to a minimum of twe bedrock.
- 2. PlacemPlacementPlacement of the pump shall not be less than twenty (20) feet below the Place thethe water level measured at the water level measured at the end of a succession than ten (10) feet above the bottom of the well.
- C. NoNo new or replacemenNo new or replacement wellNo new or replacement well shat an permanent water level access tube, installed with the perman permanent water level a facilitate facilitate measurement of the water level in the well. The tube (e.g., facilitate measurement polyppolypipe) polypipe) shall expolypipe) shall extend from the rim of the well casing to, at I pump.pump. The internal pump. The internal diameter of the tule commonly commonly used, electronic watercommonly used, electronic water levecommonly inside diameter of one (1) inch).

§ 185-10. WELL TEST REQUIREMENTS

- 1. <u>GeneralGeneral RequiremedGeneral Requirements</u>. The capability of a well to me totaltotal daily requirements of the rtotal daily requirements of the realty imprtotal daily recthroughthrough a three (3) part pumping test. The wethrough a three (3) part pudemdemand/constantdemand/constant rate portion of the test as required for the size and use realtyrealty improvement to be supported by realty improver conducted, conducted, constantconducted, constant headconducted, constant head portion of the whether the twhether the aquifewhether the aquifer can support the long term needs of the TheThe well recoveryThe well recovery portion of the test provides additional data at of of the wof the well of the well for extended use relative to the local yield of the aquifer. Obserwell measurements during these tests provide interference information.
 - (1) AllAll well tests shall be conducted uAll well tests shall be conducted under qualifiedqualified hydrogeologicqualified hydrogeologic prqualified hydrogeolog pumppump installer, duly lipump installer, duly licenpump installer, duly licenses NewNew Jersey, who shall certify the results to the Board of Health. Health. All Health. All test resHealth. All test results shall be retrownshipTownship Well TestingTownship Well Testing of Health.
 - (2) The Board of Health reserve The Board of Health reserves the rThe Board tests.tests. A minimum otests. A minimum of two (2) working noticenotice snotice shall be provided to the Board of Health. The Hoff Health reserves the right to allof Health reserves the right to allot testinof Hoscheduling problems.
- 2. GeneralGeneral Technical RequiGeneral Technical RequirementGeneral Technical Requirement inin one (1) continuous operation as specified in this Chapin one (1) continuous operation as sitsits static level at the beginning of the test (i.e., the water leveits static level at the beginning havehave been undisturbed for at least twelve [1have been undisturbed for at least twelve [12] or the test sequence is interrupted, the test must be started over, following a minimum recovery of ninety (90%) percent of the pre-test static water level.
 - (1) PumpingPumping rates shall be measured with either an Pumping rates sh waterwater meter, or by timing the cwater meter, or by timing the cowate volumevolume from the dischavolume from the discharge, volume from the discharge pipe. Flow rates must be pipe. Flow rates must be adjpipe. Flow rates m vavalve.valve. The method used shall be identified on tvalve. The ratemonyHarmony Township Well Testing Report forms issued by the Board of Health.
 - (2) The The pumped water mThe pumped water must be cThe pumped water must headhead and head and dihead and discharged a minimum distance of one hum (100)(100) feet aw(100) feet away (100) feet away to minimize direct recharges.

duduringduring the test. Water pumped during the test may be discdischardischargeddischarged to waste at a shorter distance if it is immediately routedrouted torouted to a moving surface water body (e.g., a stream) of non-retention non-retention type" stormwater system stormwater system capacity.

(3) The The water level in the The water level in the well mu The water level is durinduring during the touring the test, at a minimum, to the nearest tenth (0.1) of aa foot from a fixed point (typically from the top of the wea foot from a casing).casing). Air lines may not becasing). Air lines may not be use measurement measurement purposes, unless protocolors.

C. <u>Peak Demand Test.</u>

- (1) General Requirements. The peak. The peak d. The peak demand test constant constant rate pumping constant rate pumping to wellwell can supply the water needed well can supply the water improimprovementimprovement during times of peak water demand. The peaimpned demanddemand test shademand test shall dedemand test shall demonstrate aquifer, aquifer, that raquifer, that rechaaquifer, that recharge during the peak derequalsequals the peak loequals the peak load required for the realty in bebe serviced by be serviced by the well. If the results of the peak derestest are test are unstest are unsatisfactory, either modifications to the vecharacteristics characteristics or the usage characharacteristics or the usage improvement improvement shall bimprovement shall be made, or the well shall be and and sealed in accordance with thand sealed in accordance with the rand sealed 7:9D-3.1 et. seq.
- (2) TestTest Protocol.. The wel. The well shall be pumped constantly at least atat the peak demand rate for at the peak demand rate for at the peak demand. The The peak demand The peak demand rate for reside gpmgpm for egpm for each gpm for each full bathroom, plus one and one-had gpmgpm for each half-gpm for each half-bath. The proposed lades in the daily demand volthe daily demand volume designdesign application for proposed sign application for proposed lades ign (expressed expressed in gallons per day), and the peak demand time equals equals the time required to deliver the demand rate:

The The peak demand rate of The peak demand rate of non-The peak deman gpmgpm for each majorgpm for each major water supply showershower head, bathtub, dishwasher, laundry unit, water cooledcooled air conditioner, etc.) plus, if approposed air conditioner, einstantaneous application rate for proposed lawn irrigation systemssystems (expressed in gallons per minute), as propsystems (expressed in thethe served non-residential facility; the peak loadthe served non-residential one-halfone-half of the minimum daily water requirements according according to N.J.A.C. 7:10-12.7, and the peak demandaccording to N.J. equals equals the time required to deliver the peak load at the peak-demand rate.

The The water levels shall The water levels shall be mea The water levels shall minimum, minimum, once every five (5) minimum, once every five (5) During During the test, the water During the test, the water (pumpi During the test not not be drawn doot be drawn down, at anytime during the test, to a dept lessless than twenty (20) feet less than twenty (20) feet less than twenty (21) feet less than twenty (22) measurement measurement of the water level measurement of the water level in immediately immediately before initiating the subimmediately before initiating the portion of the pumping test.

D. Constant-Head Pumping Test.

(1) <u>General Requirements</u>. The consta. The constant hea. The constant shshallshall be used to determine whether the recharge froshall be used to determine aquifer is sufficient to meet the long-term use of the well.

For For non-residential or multi-residence realty For non-residential or multi-residence thethe minimum watthe minimum water the minimum water requirements of govern, govern, govern, and govern, and each one hundred fifty (150) gallon prequirement requirement or fraction thereof shall be considered equivalent equivalent to one (1) bedroom for equivalent to one (1) bedroom constant constant head pump constant head pump test. Aconstant head pump test gpmgpm shall be required gpm shall be required for eagpm shall be required for eagpm shall be required for eagpm.

(2) <u>TestTest ProtTest Protocol</u>. The constant head portion of the pumping testtest shall immediately follow the test shall immediately follow the peaktest thethe test withhet test without intthe test without interruption. The discharge throttledthrottled so that the waterhrottled so that the water levethrottled so wellwell immediately prior to termination of thwell immediately prior to terminatest is maintained for a minimum of four (4) htest is maintained for a minimum.

maximummaximum of twelmaximum of twelve maximum of twelve (12) hours. moremore than 0.5 feet. The pumping rate shallmore than 0.5 feet. The pumping atta ten (10) minute intervals during this time. I not varied significant varied significant varied significantly by more than or perper minute for at least the last hour, the aquifer-toper minute for at least recharechargerecharge rate shall be determined to be equal to the measumeasured measured pumping rate. If the pumping rate coincidmeasured withwith the stabilized water level is less than the flow needwith the stabilized to too meet the daily demand volume, then the well faito meet the daily demand portion of the test.

E. <u>WellWell Recovery Test</u>. Immediately following the constant head portion of the threethree (3) part pumping test, the water level in the subject well shall be mthree (3) part pur and recorded until it has and recorded until it has recovered to an advance to a second until it has recovered to an advance to a second until it has recovered to an advance to a second until it has recovered to a second until it

Failure Failure of a well to recove Failure of a well to recover Failure of a well to recover to w waterwater level within a twenty-four (24) hour period raises doubtswater level within reliability reliability of a long-term water supply developed from the well at the utilized test raterate or any greater raterate or any greater rate. Under such coandand provide and provide technical support for the use of the well at a lower rate (possible including including the completion of a second pumping test at the lincluding the completion and test in a similar manner an alternative supply well.

§ 185-11. WELL INTERFERENCE

A NewNew wells in pNew wells in proxiNew wells in proximity to existing supply wells. determination determination required by \$185-7D of the thousand (1,000) feethousand (1,000) feet housand (1,000) feet of the new well made determine well interference.

The The applicant for well certification shall notify all owners of real property The applicant for wellswells are locatedwells are located within one thousand (1,000) feet of the primpending impending well tests. This notification shall be by certified mail on forms available available favailable from the Board of Health, and at least two (2) weeks prior to the a tests.tests. The owners of thetests. The owners of the closest wests. The owners of the notified, may request monitoring of their well at the applicant's expense.

ToTo qualifyTo qualify as an obsTo qualify as an observation well, pumping of the proposition must be either be ceased for at least three (3) hours before throughout, throughout, the test sequence, or anthroughout, the test sequence, or an athroughout,

and and rand recording device must be installed and remain in the well immediately prand recording to, and throughout, the test period.

The The water levels of utilized observation wells shall be measured and recorded The wat leastleast least once every one-half (1/2) hour, beginning one (1) hour before the pleast or demanddemand test and continuing udemand test and continuing pumping test of the new well.

If If the drawdown in any observation well during the drawdown in any observation well during the following:

- (1) AA reductA reductioA reduction of the residual available drawdown of ththethe the observation well by twenty (20) feet or more, based on its respective peak-demand operation; or
- (2) AA lowering of the non-pumping A lowering of the non-pumping wateA lower observation observation well observation well tobservation well to within one hun thethe existing pump-intake setting or the existing pump-intake setting or the existing water-level access tube.

thethe well interference shall be considered well interference shall be considered well interfer supplysupply well shall not be certified unlessupply we satisfactionsatisfaction of the Board of Health that the interference can be established satisfaction to the existing and find the existing and future use of otherwise not significant.

The The applicant may opt to install one or more monThe applicant may opt to install one or n wellswells in the event that wells in the event that access to supply The The locations and construction of such wells must be approved by the TThe locations and prior to installation.

B. <u>MultipleMultiple well water supply systems</u>. If the use of. If the use of more th. If the provision provision of the water supply fprovision of the water supply for a realprovision of the wellswells must be capable of one hundred (100%) wells must be capable of one hundred (100% waterwater supply for the realty improvement, and interference testing bwater supply for the wells proposed for the system is mandatory.

§ 185-12. HEARING UPON DENIAL OF PERMIT, LICENSE OR CERTIFICATE

InIn case any license or permit or Certification required by this ChapIn case any license or permit or BoardBoard of Health, a Board of Health, a hearing shallboard of Health, a hearing shall be held thereon before requestrequest therefor is made by the applicant and, upon such hearing, the request therefor is made by affirm, affirm, alter or rescind its previous determination and take action affirm, alter or rescind its previous days after the date of such hearing.

§ 185-13. <u>STOP-WORK ORDERS</u>

The Board of Healt The Board of Health may order The Board of Health may order all further work bbeingbeing erected or installed in violation of the code, to be stopped forthwith, except subeing erected or in shallshall be necessary to remshall be necessary to remedy such violation aviolation of any of the provisions of the codviolation of any of the serviceservice of a copy thereof upon service of a copy thereof upon any person connservice of a copy thereof or installation of any such water supply or any part thereof, no further work shall be of thereon except as aforesaid.

§ 185-14. FEES AND CHARGES

The following fees and charges are herewith established:

- A. ForFor the filing of an application and application and application and application and construct a water supply Two Hundred Fifty (\$250.00) Dollars.
- B. For the filing of an application and plans for a license or permit to alter an existing water supply Two Hundred Fifty (\$250.00) Dollars.
- C. For For the filing of an application and pla For the filing of an application and plans For the existing water supply Twenty Five (\$25.00) Dollars.

§ 185-15. **PENALTIES**

AnyAny person or persons, firm oAny person or persons, firm or corporationAny person or person orderorder promulgated under this Ordinance shall, upon conviction hereof, pay a penalty of not more thanthan Five Hundred (\$500.00) Dollars, nor less than Fifty (\$50.00) Dollars for each violation. Each day a particular violation continues shall constitute a separate offense.

§ 185-16. <u>SEVERABILITY</u>

IfIf anyIf any provision of this Chapter or the application thereof is held by any Court of competentcompetent jurisdiction to be invalid or unenforceable, competent jurisdiction to be invalid or unenforceable, the other provisions of this Chapter.

Repealer. AllAll Ordinances or parAll Ordinances or parts of OrAll Ordinances or parts of OrOrdinance shall be repealed as to their inconsistencies only.

EffectEffective DEffective Date. This Ordinance shall take effect following final

publication in accordance with law.

NOTICENOTICE IS HEREBY GIVEN that the foregoing Ordinance was intrthat the foregoing Ordin

onon first reading by the Harmony Township Committee at its reguon first reading by the Harmony Township

JulyJuly 3, 2002, which Ordinance shall be given further consideratJuly 3, 2002, which Ordinance shall be given

publicpublic hearing to be conducted thereon at its regular monthly meeting to bpublic hearing to be conducted

2003,2003, w2003, which sha2003, which shall commence at 7:30 P.M at the Harmony Township Municipal

Belvidere Road, Phillipsburg, NJ 08865.

Loyce C. Johnson

Municipal Clerk