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DIVISION OF ENVIRONMENTAL HEALTH SERVICES

**PROCEDURES AND POLICIES FOR
REALTY SUBDIVISION PROGRAM**

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PUTNAM COUNTY DEPARTMENT OF HEALTH DIVISION OF ENVIRONMENTAL HEALTH SERVICES

1.0 INTRODUCTION

The Putnam County Department of Health (the "Department"), Division of Environmental Health Services has developed this detailed guide for submission requirements, policies and procedures relative to submission of plans for Realty Subdivisions.

The following is a description of the requirements of the Department for submission of an application for approval of a Realty Subdivision. This document is not meant to substitute for the design standards of the New York State Department of Health (DOH), NYS Department of Environmental Conservation (DEC) and/or NYC Department of Environmental Protection (DEP), as applicable, set forth in documents listed below, but should serve as a general guide to Department requirements and procedures. The Department may require additional information or procedures as considered necessary based upon detailed engineering review of a project.

On May 15, 1992, the Putnam County Board of Health filed with the County Clerk Article IV of the Putnam County Sanitary Code, which enacted regulations for Realty Subdivision approval. These regulations require the approval of the Department for the division of any tract of land into two or more parcels for sale or rent as residential building plots.

The Department, in review and approval of realty subdivisions, addresses community needs and potential adverse impacts for the purpose of insuring the provision of adequate water and sewage facilities. Generally, smaller subdivisions are served by individual wells and subsurface sewage treatment systems (SSTS) and larger developments, those involving more than 49 lots or greater than 30,000 gallons per day of sewage discharge, may require central water and sewage facilities.

When a central water system is planned for a subdivision, DOH (construction plans and specifications) and DEC (water supply application) approvals are required prior to the Departments approval of the realty subdivision. When a central sewage system is proposed, a SPDES permit for the sewage discharge must be obtained from the DEC. Construction plans for the sewage collection system and sewage treatment system must be approved by the Department and/or the DEC and DEP, as required, prior to approval of the realty subdivision. Other DEC permits may be required such as wetlands or protection of waters, depending on the individual requirements of each subdivision.

All projects located within the NYC Watershed in Putnam County are also subject to the NYCDEP Watershed Regulations. Certain projects within the NYC Watershed have been delegated to the Department for review and approval of new SSTS per the Delegation Agreement located in Appendix J.

All applications for review and approval of new SSTS to be located within the NYC Watershed

shall be sent to the Department, and need not be sent in duplicate to the DEP, although the project may require DEP approval of the SSTS prior to final approval by the Department. Such approval will be coordinated internally between the Department and DEP. The DEP is also an involved agency pursuant to SEQRA and projects within the watershed may also required DEP review and approval of other aspects of a project, such as stormwater plans or the creation of impervious surfaces, and the project applicant should obtain the appropriate forms for such activities from DEP and submit those forms to DEP for review and approval.

2.0 DESIGN DOCUMENTS AND PARAMETERS

The following documents will be utilized by the Department during review of Realty Subdivision Applications.

A. Subdivisions With Subsurface Sewage Treatment/Individual Water Supply

1. 10 NYCRR Appendix 5B, Standards for Water Wells.
2. NYS Department of Health Publication, "Individual Wastewater Treatment Design Handbook."
3. NYS Department of Health Publication, "Planning the Subdivision as Part of the Total Environment."
4. 10 NYCRR Part 74 – Approval of Realty Subdivisions.
5. 10 NYCRR Part 75 – Appendix A, Wastewater Treatment Standards – Individual Household.
6. Article IV, "Realty Subdivision Water & Sewer Service," Putnam County Sanitary Code.
7. Article X, "Water Well Construction," Putnam County Sanitary Code.

B. Subdivisions With Central Sewage Facilities

1. NYSDEC Publication, "Design Standards For Wastewater Treatment Works."
2. GLUMRB "Recommended Standards For Sewage Works" (Ten State Standards).
3. Article VIII, "Central Wastewater Collection Treatment or Disposal Systems," Putnam County Sanitary Code.
4. NYSDEC Technical Information Pamphlets (TIPS).

C. Subdivision With Central Water Supply Facilities

1. NYSDOH Publication, "Designing Community Water Systems."
2. GLUMRB, "Recommended Standards For Water Works," (Ten State Standards).
3. 10 NYCRR NYS Sanitary Code Part 5-1, Public Water Systems.
4. 10 NYCRR NYS Sanitary Code Part 5-2, Water Well Construction.
5. Article X, "Water Well Construction," Putnam County Sanitary Code.

D. Design Parameters

The Department has adopted the following design requirements which are more stringent than those in the above documents.

Sewage Treatment Systems

- Putnam County Department of Health document, "Procedure For Running Soil Percolation Tests" (Appendix A).
- Hydraulic design loading rates as specified in Appendix B.
- Required length of absorption trenches as specified in Appendix C.
- Minimum 3-bedroom dwelling sewage treatment system design for lots with individual SSTS.
- Maximum application rate of 1 gpd/sq.ft. for percolation rates between 1 and 7 min/inch outside the NYC Watershed and 3 to 7 min/inch for projects within NYC Watershed.
- Percolation rates slower than 60 min/inch are unacceptable.
- Minimum of 5 feet of useable soil required between bottom of absorption system and ledge rock/impervious layer.
- Minimum of 4 feet of unsaturated useable soil required between bottom of absorption system and groundwater.
- Minimum of 3.5 feet of useable in situ soil required for entertaining fill system for absorption trench system.
- Distance for a subsurface sewage treatment system to a non-regulated NYC Water Supply pond, lake reservoir or reservoir stem utilized as a source of potable water for a public water supply system and/or Department permitted bathing beach is 200 feet.
- Minimum of 100 percent SSTS reserve area required.
- Graveless absorption systems, evaporation-transpiration (ET), evapo-transpiration absorption (ETA), intermittent sand filters, deep absorption systems, shallow absorption systems, raised systems, mounds and absorption bed systems are not allowed for new subdivisions.
- Minimum separation distance of 25 feet from a SSTS to a retaining wall.
- Minimum separation distance of 50 feet from a SSTS to a stormwater catch basin.
- Minimum separation distance of 35 feet from a SSTS to a stormwater drainage pipe.
- Minimum separation distance of 25 feet from a SSTS to the top of an embankment.
- Minimum separation distance of 50 feet from a SSTS uphill of a dwelling, in addition

to, an impermeable barrier which extends below the footing drains, between the dwelling and SSTS

- Minimum horizontal separation distance of 5 feet from ledge to a SSTS designed for no fill or 2 feet of less fill.
- For fill systems greater than 2 feet, the toe of the fill pad is to be keyed into existing soil and maintain a minimum horizontal separation distance of 5 feet to ledge.

Water Supply

- Only drilled wells permitted for individual supplies.
- Direct line of drainage determination (Appendix D).

3.0 REALTY SUBDIVISION PROGRAM REQUIREMENTS AND DESIGN PARAMETERS

A. Types of Approvals

The Department will entertain two types of subdivisions, jurisdictional and non-jurisdictional, depending on the type of subdivision proposed.

1. Non-Jurisdictional

Those subdivisions of property which create lots five (5) acres or greater are considered as non-jurisdictional and may be signed by the Department as non-jurisdictional. In addition, subdivisions involving lot line changes, regardless of lot size, will be considered non-jurisdictional subdivisions. All non-jurisdictional subdivisions, which include existing developed lots, must show the locations of existing improvements such as, buildings, wells, SSTS areas, driveways, etc.

2. Jurisdictional

Those subdivisions of property which create two (2) or more lots less than five (5) acres are considered as jurisdictional and will be signed by the Department as jurisdictional. All jurisdictional subdivision plat approvals will be valid for five (5) years.

B. Existing Facilities

The subdivision of property with existing dwellings, and water and/or sewage facilities has been misconceived in relationship to non-jurisdictional subdivisions. In most cases, existing lots have substandard facilities which will be reviewed in any realty subdivision application submitted to this Department. It is the intention of this Department to make the subdivided existing lots self-sufficient in terms of water supply and sewage treatment systems and to bring the existing lots into conformance with all regulatory codes governing these items.

When existing facilities are involved in a subdivision, the location of all buildings, wells and sewage treatment systems must be shown on the plans based upon accurate measurements. Each dwelling must served by a SSTS if a public sewer connection is not available. If a SSTS does not exist or is shared, plans must show a location for a new SSTS serving each dwelling meeting current applicable standards, including reserve areas. This Department will make a decision relative to the replacement and/or upgrading of existing facilities upon the receipt of the application.

Where SSTS areas exist on each lot, adequate reserve areas, based upon soil percolation tests and bedroom count, must be shown on each lot. The Department will make a decision upon the need for deep test holes upon review of the plan and a field inspection. A proposed well location, if applicable, should also be shown for each lot complying with the current applicable standards. In addition, the Design Professional will be required to inspect the existing SSTS and if the system is found to be acceptable for continued use, the following note shall be placed on the plan and referenced in the remarks column of the SSTS Schedule;

“The existing sewage system on Lot # ___ was inspected by the design (engineer/architect) and was found to be functioning satisfactorily without any discharges to the ground surface or surface water.”

When an existing well or wells exist on a subdivision of 4 lots or less, the following information will be required to be submitted:

1. Well log specifying well depth and yield.
2. Water quality analysis for the parameters in Table 1 below:

TABLE I	
CONTAMINANT	MCL (1)(4)(5)
Coliform bacteria	Any positive result is unsatisfactory
Lead	0.015 mg/l (15 ug/l)
Nitrates	10 mg/l as N
Nitrites	1 mg/l as N
Iron	0.3 mg/l
Manganese	0.3 mg/l
Iron plus manganese	0.5 mg/l
Sodium	No designated limit (2)
pH	No designated limit
Hardness	No designated limit
Alkalinity	No designated limit
Turbidity	5 NTU (3)

NOTES: (1) Maximum contaminant level.

- (2) Water containing more than 20 mg/l of sodium should not be used for drinking by people on severely restricted sodium diets. Water containing more than 270 mg/l of sodium should not be used by people on moderately restricted sodium diets.
- (3) NTU means Nephelometric Turbidity Units.
- (4) mg/l means milligram per liter.
- (5) ug/l means microgram per liter.

C. Subdivision Plans

All plans submitted for review are to be prepared by a Design Professional (i.e., Professional Engineer, Registered Architect or Land Surveyor with exemption under Section 7208(n) of the NYS Education Law) licensed to practice in New York State. Every jurisdictional subdivision plan submitted must have surface contours shown at 2-foot intervals. The plan shall provide a note disclosing the source and/or certification as to accuracy of the topographic contours. SSTS design is to be based on a minimum of three (3) bedrooms per house. On-site or off-site drainage must be shown adequately diverted from the SSTS area.

Dimensions from property lines to the well must be specified, as must minimum or maximum house setbacks where applicable. All streams, wetlands, drainage courses, etc., on or within 200 feet of the property lines must be shown.

As a reminder, FEMA Flood Plain Maps and State/local wetlands maps must be consulted for all projects, as appropriate. The 100-year flood elevation and State/local wetlands boundaries must be shown on all plans.

For additional requirements, refer to Section 4.0

D. Deep Test Holes

The design of an SSTS is predicated upon site conditions, percolation test results, observation of soil strata in deep holes and the location of adjacent wells. One segment of the Department's review of subdivisions proposing SSTS areas is the inspection of deep test holes. The Department will not schedule field testing without an engineering plan as specified above. Property corners staked by a Licensed Land Surveyor, where warranted, must be visible to the Department Inspector at the time of the initial inspection. All projects which will require the witnessing of soil testing by this Department must first be submitted to the local Town Wetland Board for review. This Department will **not** schedule field testing for projects in any town until the Town Wetland Board has reviewed the submitted site plans and provides this Department with either a:

- Letter of Permission stating that the Wetland Board has reviewed the site and that no wetlands exist and, therefore, test holes can be dug.

Or:

- Letter indicating that the project will require a wetlands application and, therefore, no test holes can be dug until a permit is granted.

Deep test holes must be excavated to a depth of at least 5 feet below the bottom of the proposed absorption system. Normal absorption trench systems require 7 feet deep holes.

A minimum of four (4) deep test holes are required for each SSTS area (minimum of two (2) in the primary area and two (2) in the reserve area). Additional deep test holes may be required for larger systems or to adequately define boundary conditions within the SSTS area if ledge rock and/or groundwater are encountered. Visual observations of the deep test holes, such as soil mottling, silt and clay content, soil density, etc., shall be considered in the design, evaluation, and sizing of the absorption area. Deep test holes are to be backfilled immediately upon inspection by the Department. Construction equipment for excavating deep test holes should be on-site during the inspection. The Department strongly recommends excavation of deep test holes on the day of the Department's inspection and no more than two (2) days prior to the date of the inspection. Any inspection of deep test holes resulting in the Department not being able to accurately observe/classify soils may result in the Department requiring re-excavation of the deep test holes.

Soil testing conducted during dry weather conditions is frequently misleading and therefore, during the period from July 15th through September 15th, deep hole testing for any new project will not be considered by the Department. The Department will observe deep test holes and/or entertain deep test hole data during July 15th through September 15th only for those lots which have previous documented deep test hole data (i.e. subdivision filed map or approved construction permit).

E. Percolation Tests

Soil percolation test results are indicative of the ability of a soil to absorb wastewater and percolation tests are one of the most important factors in determining the size of the SSTS. The tests shall be performed in natural soil within the area planned to be utilized for sewage treatment. A minimum of four (4) percolation tests, spaced uniformly throughout the SSTS area, shall be conducted for each proposed individual SSTS (minimum of two (2) in the primary area and two (2) in the reserve area). Larger SSTS areas may require additional percolation tests, as necessary, to determine the site's suitability for subsurface sewage treatment. The slowest stabilized percolation test result shall be utilized to design the SSTS. If the soil conditions are highly variable, more tests may be required. The percolation tests must be used in conjunction with the deep test soil observations and should be consistent with deep test soil observations.

Soil percolation tests must be performed in accordance with Appendix A, "Procedure For Performing Soil Percolation Tests." The soil design data sheet must indicate the depth of the percolation test hole and shall verify that pre-soaking of the percolation hole was done, as prescribed by the procedure in the standards. For conventional absorption trench systems, the bottom of the percolation test holes shall be 24 to 30 inches below grade.

Sites where the standard soil percolation test cannot be performed in the natural soils due to the presence of ledge rock, impervious strata, groundwater, or other circumstances, are not considered suitable for a SSTS.

Percolation tests may be conducted except when the ground is frozen or precipitation

interferes with the test (i.e., adds water to the test hole). It should be noted that soil tests made during dry weather conditions are frequently misleading and therefore, from July 15th through September 15th, percolation testing for any new project will not be considered by the Department. The Department will witness percolation tests and/or entertain percolation test data during July 15th through September 15th only for those lots which have previous documented percolation test data (i.e. subdivision filed map or approved construction permit.)

The Department reserves the right to require additional tests during a wet time of the year when it is deemed necessary. The Department may also require adjustments to percolation test results performed in dry weather as experience may indicate to be necessary. Wet weather testing is strongly recommended.

The Department will require the witnessing of soil percolation tests as follows:

1. Any lot less than 0.5 acres in size.
2. Any lot where all or most of the lot area is utilized for the primary and reserve SSTS areas.
3. Any lot where Department engineering review indicates a concern relative to soil rate.
4. Any lot located within the NYC Watershed delegated to PCHD per Delegation Agreement (Appendix J).

The Department representative witnessing the tests will observe a minimum of three (3) runs until stabilization is achieved in each percolation test hole. This will be performed after the holes have been presoaked.

F. **Fill Sections**

Fill is viewed by the Department as a supplement to existing soil and is not to be considered in lieu of soil naturally in place. It is required that one-half of the useable soil depth be naturally in place. Thus, 42 inches of useable natural soil must exist in the SSTS area for the design of an absorption trench fill system. If the seasonal high groundwater level is no less than 30 inches (2.5 ft.) below original grade, the Department may entertain a fill system provided acceptable percolation rates at 24 inches are obtained in the in situ soil. Design of SSTS in fill sections must be based upon the percolation rate of the original soil. Minimum restrictive separation distances are to be measured from the toe of the fill pad side slope for designs requiring more than 2 feet of fill; all others are to be measured from the absorption system.

A typical fill section detail is provided in Appendix E.

G. Curtain Drains

When groundwater dewatering is needed to make a site suitable for a conventional shallow absorption trench system (i.e., where high groundwater is less than 30 inches below grade) an acceptable method of determining absorption area dewatering effectiveness is to be followed.

Acceptable methods of determining proposed wastewater absorption area dewatering effectiveness, including monitoring groundwater elevation upgradient from and within a proposed wastewater absorption area, during a normal high groundwater period (March 15-June 30) are outlined below:

1. Installation of a permanent curtain drain upgradient from a proposed wastewater absorption area with a non-perforated outlet pipe discharging intercepted groundwater at least 20 feet downgradient from the proposed wastewater absorption area.
2. Installation of a temporary open test trench upgradient from a proposed wastewater absorption area with the collected water conveyed to a discharge point at least 20 feet downgradient from the proposed wastewater absorption area by means of a non-perforated gravity outlet pipe installed in a trench and backfilled with native soil to grade between the inlet and outlet,
3. Installation of a 7-foot deep temporary open trench upgradient from a proposed wastewater absorption area and extending to grade at least 20 feet downgradient from the proposed wastewater absorption area provided all of the following conditions are met: (a) slope of in situ soil shall be ≥ 5 percent to ≤ 15 percent. (b) in-situ soil percolation rate at 24 to 30 inches below grade shall be 1 to 30 min/inch, and (c) a 4-foot minimum vertical separation shall be provided between the bottom of the proposed absorption trenches and high ground water (i.e., following dewatering).

Where a curtain drain is required to lower the groundwater within the SSTS area, its discharge should be shown preferably to an existing watercourse on the subject parcel or a stormwater drainage system. In the event a curtain drain cannot discharge to a watercourse or storm sewer, a level-spreader or flow-diffuser for the curtain drain discharge outlet shall be designed. If discharging to an adjacent property not owned by the applicant, a written easement must be obtained from the property owner. In order to verify that a permanent curtain drain has been constructed to a proper depth and is serving to lower the groundwater table in the SSTS area, all curtain drain installations will be required to be provided with vertical standpipes of 4" perforated PVC pipe installed to a depth of at least 5 feet below the bottom of the absorption system, installed 5 feet from the curtain drain on the upgradient and downgradient sides for groundwater monitoring purposes. These standpipes must be shown on the plan along with construction details.

The minimum frequency of groundwater monitoring shall be weekly readings and after rain events. Reports summarizing the groundwater monitoring data are to be submitted to the Department monthly.

H. State Wetlands

All DEC mapped freshwater wetlands and the control areas adjacent to these wetlands for a distance of 100 feet are protected. Certain activities are exempt from regulations while others that may have a negative impact on the wetland are regulated. To conduct any activity in a protected wetland or its adjacent area, a permit is required from the DEC.

State wetland maps should be reviewed to determine if any portion of the property being developed is in, or within 100 feet, of a State wetland and, therefore, requires a DEC Permit. All wetlands are to be shown on the subdivision plan along with the extent of the protected wetland control area.

All wetlands shown on submitted plans shall indicate the source of identification and certification by a licensed land surveyor as to the accuracy of the wetlands location. If a wetlands permit is required, it is required to be obtained from the DEC prior to subdivision approval by the Department.

I. Local Wetlands

Several municipalities in Putnam County have adopted local wetland ordinances and maps. The local municipalities should be contacted to determine if the property being developed is regulated locally.

All wetlands must be shown on the plan along with the extent of the protected wetland control area. All wetlands shown on submitted plans shall indicate the source of identification and certification by a licensed land surveyor as to the accuracy of the wetlands location. If the property contains a locally regulated wetland and a wetland permit is required, it is to be obtained from the municipality prior to project approval by the Department.

J. Individual Water Supply

It has been the general policy of the Department to include in its review of realty subdivision applications which are proposed for individual wells, a review of well logs for wells on adjacent properties in order to determine if low-yielding wells are a problem in the area.

Should such review indicate that low-yield wells are present, a number of wells are required to be drilled and pump tested prior to approval of the subdivision.

In order to better determine if groundwater is available for individual wells at rates equal to or exceeding 5 gpm, the following general policy will also be followed by the Department. This policy is subject to interpretation by Department staff based upon, but not limited to, the following:

1. Project size
2. Site Conditions
3. Existing well yield(s).

Policy

1. The Design Professional will be responsible for reviewing Department files to obtain well yield information for existing wells adjacent to the proposed subdivision. This information is to be submitted as part of the required application.
2. Test wells will be required to be drilled and tested, prior to realty subdivision approval in accordance with the following schedule:

Number of Proposed Lots	Number of Wells Required To Be Drilled and Tested Prior to Approval
1-4	None (*)
5-10	1
11-20	2
21-30	3
31-40	4
41-49	5

*If the subdivision includes existing wells, they should be tested as per the requirements in Section 3.B.

All test wells will be required to be tested for quantity by means of a minimum 6-hour pump test. In addition, all test wells drilled pursuant to the requirements of the Department will be required to be sampled for all of the parameters in Table 2.

Additional tests for other chemical and physical parameters may be required by the Department to assess the quality of water because of suspected or known environmental hazards and site specific concerns such as waste disposal sites, orchards, agricultural land uses, oil and chemical spills, oil storage facility, gasoline station, landfill, industry using chemicals, etc.

NOTE: Prior to conducting tests to determine the physical, and chemical quality of the water, the Design Professional should contact and consult with the Department to establish criteria for additional parameters which will require analysis.

The quantity and locations of test wells are to be determined by the Department. Well Permit applications are to be submitted for each well and approved by the Department prior to installation.

3. Where well yields below 5 g.p.m. are reported, a community public water supply system may be required to serve the project.

TABLE 2**Microbiological****Contaminants**

Total Coliform
Escherichia Coli (E.coli)

Inorganic Chemicals & Physical Characteristics

Arsenic	Iron	Antimony
Barium	Manganese	Beryllium
Cadmium	Sodium	Nickel
Chromium	Sulfate	Thallium
Mercury	Zinc	Cyanide
Selenium	Color	Turbidity
Silver	Odor	Nitrate
Fluoride	Lead	Nitrite
Chloride	Copper	Total

Nitrate/Nitrite

Principal Organic Contaminants

benzene	1,1-dichloroethane	1,1,1,2-tetrachloroethane
bromobenzene	1,2-dichloroethane	1,1,2,2-tetrachloroethane
bromochloromethane	1,1-dichloroethene	tetrachloroethene
bromomethane	cis-1,2-dichloroethene	toluene
n-butylbenzene	trans-1,2-dichloroethene	1,2,3-trichlorobenzene
sec-butylbenzene	1,2-dichloropropane	1,2,4-trichlorobenzene
tert-butylbenzene	1,3-dichloropropane	1,1,1-trichloroethane
carbon tetrachloride	2,2-dichloropropane	1,1,2-trichloroethane
chlorobenzene	1,1-dichloropropene	trichloroethene
chloroethane	cis-1,3-dichloropropene	trichlorofluoromethane
2-chlorotoluene	ethylbenzene	1,2,4-trimethylbenzene
4-chlorotoluene	hexachlorobutadiene	1,3,5-trimethylbenzene
Dibromomethane	isopropylbenzene	m-xylene
1,2-dichlorobenzene	p-isopropyltoluene	o-xylene
1,3-dichlorobenzene	methylene chloride	p-xylene
1,4-dichlorobenzene	n-propylbenzene	Vinyl Chloride
Dichlorodifluoromethane	styrene	Methyl tert-butyl ethane (MTBE)

EPA method 502.2 or EPA method 524.1 or EPA method 524.2 or a combination of EPA methods 502.1 and 503.1 with a detection limit of 0.5 ug/l or less.

K. Other Required Permits

If the proposed subdivision involves permits by other agencies, i.e. stream protection (NYSDEC), wetlands (Army Corps of Engineers), etc., the Department will require all other agency approvals to be secured prior to project approval.

4.0 REALTY SUBDIVISION APPROVAL PROCESS

The conception, design and approval of a Realty Subdivision takes place over a period of time which may vary from several months to several years. Three stages have been delineated in the Realty Subdivision approval process as set forth below.

A. Pre-Application Conference

The pre-application conference has demonstrated its value in that it results in a smooth-running process and line of communication between the owner, the owner's Design Professional, and the Department. Furthermore, the owner and engineer will be informed of Department rules, regulations, policies and requirements. At the pre-application conference, the main topics to be discussed are as follows:

1. General requirements of the Department.
2. The scope of the proposed project and type of sewage treatment and water supply proposed.
3. Department of Environmental Conservation Permits required, if necessary.
4. Department of Environmental Protection Permits and/or approvals, if required.
5. General physical characteristics of the area (i.e., topography, soil type, ledge rock and/or groundwater constraints and wetlands).

The pre-application conference should take place in conjunction with preliminary local planning board discussions in order for the requirements of the Department to be considered in the conception of a project.

B. Preliminary Realty Subdivision Requirements

Prior to the Department's site investigation, the following documents must be submitted for review:

Two (2) copies of the Preliminary Realty Subdivision Plan signed and sealed by a Design Professional showing:

- Minimum scale of 1" = 50' for site plan
- Proposed layout of lots.
- Road locations.

- Topography; 5 foot minimum contours.
- Major physical features, i.e., wetlands, watercourses, stone walls, major rock outcrops, etc.
- Locations of sewage treatment area(s).
- Adjacent property owners.
- Location map at minimum scale 1" = 2,000', north arrow.
- Location of all existing and/or proposed wells and SSTS on and within 200 feet of property line.
- Property boundary survey by a NYS Licensed Land Surveyor.
- Title box indicating name and address of property owner; property location, including street and municipality; name, address and phone number of Design Professional; date of drawing, including dates of any revisions; drawing scale; and tax map designation.
- Delineation of United States Department of Agriculture Soil Conservation Service soil type boundaries.

2. A preliminary engineering report, if required.

Following review of the above-mentioned documents, a detailed site investigation will be made by the Department.

The Department requests a minimum of 48-hours advance notice prior to on-site deep test hole inspection. If a member of the Department cannot be present at the time of the soil testing, a mutually agreeable date to inspect the site with the Design Professional will be scheduled.

C. Final Realty Subdivision Submission Requirements

Upon finalization of the design and layout of the project, the Department will review final plans to assure that each lot complies with all appropriate Department codes and regulations. The final realty subdivision submission shall include:

1. Realty Subdivision Application, GEN 157 (Appendix K).
2. Application of Approval of Plans For A Wastewater Treatment System, (Appendix K).
3. Submittal Fee (Appendix I).
4. Design Data Sheets, Signed and sealed by the Design Professional (Appendix K).
5. Affidavit Corporate Owner Application, if applicable (See Appendix K).
6. Short Environmental Assessment Form (EAF) (Appendix K).
7. Engineering report describing the scope of the proposed project, type of water and sewage facilities, soil test results and any other information pertinent to the subdivision.

8. Documentation for the formation of water and sewer districts, if applicable.
9. All applicable DEC and DOH Permits and Plan Approvals, if applicable and applicable wetlands permits/approvals.
10. Proof that preliminary approval has been granted by the Planning Board of the municipality in which the project is located.
11. Proof is required to be provided showing that the requirements of SEQRA have been satisfied for projects subject to a coordinated review. This proof can be in the form of a negative declaration or a findings statement, if a positive declaration was issued.
12. Test well data in the form of well logs and water quality reports, if required.
13. Well driller's letter stating all of the proposed wells are located so that it is possible to get a well rig to each proposed well site within the property lines. (This item is required at the discretion of the Department's reviewing engineer.)
14. If the subdivision is to be served water and/or sewage by an extension of an existing water main or sewer line, the applicant must submit a letter and/or engineering report from the officials in charge of the water supply and/or sewage system indicating that there is sufficient water available at an adequate pressure and/or sewage capacity to service the proposed subdivision.
15. One (1) original and three (3) B/W copies of the subdivision plan signed and sealed by a Design Professional and Land Surveyor, licensed and registered to practice in New York State, showing:
 - Minimum Scale of 1" = 50' for site plan.
 - Lot layout with metes and bounds descriptions for each lot signed and sealed by a Licensed Surveyor. Each lot must be numbered.
 - Topography with 2-foot contours, existing and proposed, and major physical features such as stone walls, ledge rock outcroppings, drainage channels, etc. Plan must include note disclosing the source and/or certification as to accuracy of the topographic contours.
 - Road and driveway locations.
 - Location of any water courses, ponds, lakes or wetlands and protected controlled areas surrounding wetlands on or within 200 feet of property.
 - Location map at minimum scale 1" = 2,000', north arrow.
 - Proposed drainage system and easements.
 - Curtain drains, if required.
 - Putnam County Department of Health Realty Subdivision General Notes. (Appendix F).
 - Location of all existing and proposed wells and SSTs within 200 feet of property lines or a note stating that none exist.
 - Approval legends. (Appendix G).

- SSTS Schedule. (Appendix H).
- Proposed House with Basement and finished floor elevations.
- Proposed SSTS and well locations.
- The SSTS area shall be large enough to accommodate the primary and reserve systems and ROB fill, if required.
- A datum reference is to be provided (i.e., NGVD 1929 or assumed/other).
- Accurate location of all deep test holes and percolation test holes coordinated on plan with the soil data sheets. A minimum of four (4) deep holes and four (4) percolation tests are required on each lot unless additional deep test holes are required to define the extent of ledge rock or groundwater in the SSTS area.
- Title box – See Preliminary (Section 4.0 B.1.).
- Signature and seal of the Design Professional.
- Consent to file note signed by the subdivision applicant(s).
- Delineation of United States Dept. Of Agriculture Soil Conservation Service soil type boundaries.

It should be noted that construction details for individual SSTS components, i.e., trenches, septic tank, etc., will not be required on subdivision plans, since these plans do not authorize actual construction of the sewage facilities. These details must appear on the construction permit plans for the individual lots pursuant to the Department document entitled, "Procedure & Policies, Subsurface Sewage Treatment & Water Supply Facilities For Single-Family Residences."

16. The following are the specifications for the preparation and filing of an original map as required by the Putnam County Clerk's Office.

- a. Size: Minimum 20" X 20"
 Maximum 36" X 48"
- b. Fee as per Putnam County Clerk.
- c. Sepia Mylar is not acceptable for filing. Attachments, glued or pasted to map and/or drafting appliqué film attached to map, will not be acceptable for filing.

Real Property Law 334

All maps must be printed upon linen or canvas-backed paper or drawn with pen and Indian ink upon tracing cloth or printed on Mylar. The recording officer may reject or refuse to file any map that is unclear, crowded and not suitable for photocopying.

- d. All subdivision maps must be approved by the Planning Board where the property is located. ***ORIGINAL SIGNATURE MUST BE AFFIXED.**
- e. Maps containing two (2) lots or more must be approved by the Putnam County Department of Health. **ORIGINAL SIGNATURE MUST BE AFFIXED.**

f. **Surveyor's Certification**

"We/I hereby certify that this subdivision plat was prepared by us/me, and was made from actual survey completed by us/me on (date)." **SURVEYOR'S ORIGINAL SIGNATURE AND LICENSE NUMBER AFFIXED.**

g. Maps must have raised or stamped seal of surveyor affixed.

h. Certification of Commissioner of Finance. **ORIGINAL SIGNATURE MUST BE AFFIXED.**

i. Affidavit that a copy has been served on the Board of Assessors in the

Township where property is located – **THIS IS NOT A LAW, BUT A COURTESY TO THE BOARD OF ASSESSORS/SOLE ASSESSOR IF AND WHEN THE PARCEL IS SUBDIVIDED.**

*Town of Philipstown, requirement varies.

APPENDICES

APPENDIX A
PROCEDURE FOR PERFORMING SOIL PERCOLATION TESTS

The following procedure shall be used for conducting soil percolation tests:

- Step 1: Dig a hole with vertical sides 12 inches in diameter or square to the projected depth of the bottom of the proposed absorption trench or seepage pit (24 to 30 inches for a standard trench system). Where seepage pits are proposed, percolation tests at full and half-pit depth, are necessary.
- Step 2: Record all percolation test data onto Putnam County Health Department Form, "Design Data Sheet."
- Step 3: Placed washed gravel/stones in the lower 2 inches of each percolation test hole to reduce scouring and silting action when water is poured into the hole. The sides of percolation holes should be scraped to avoid smearing.
- Step 4: Establish a fixed reference point at the top of the hole from which all measurements are to be taken.

PRE-SOAKING

- Step 5: Pre-soak the test hole by periodically filling the entire hole with water and allowing the water to drain completely. This procedure should be performed for at least four hours and should begin one day before the test, except in clean coarse sand and gravel. After the water from the final pre-soaking has drained, remove any loose soil that has fallen from the sides of the hole.

PERCOLATION TEST

- Step 6: Refill hole to a depth not to exceed 6 inches, measured from bottom of hole.
- Step 7: Measure: a) the time for the water level to drop exactly 3 inches; or, b) the water level drop from 30 minutes, whichever comes first. Refill to original level and repeat the test a minimum of three (3) times until results of approximately equal magnitude are obtained on successive tests. (i.e., ≤ 1 minute for 1-30 min/inch, ≤ 2 minutes for 31-60 min/inch).
All soil percolation tests resulting in rates equal to or greater than 30 minutes per inch will require the tests to be conducted with a minimum of three (3) 1-hour runs or until the rate stabilizes, whichever comes first.
- Step 8: Calculate time per inch of drop in water level for each run. The last measurement shall be utilized as **THE SOIL PERCOLATION RATE**.

APPENDIX B**PUTNAM COUNTY DEPARTMENT OF HEALTH****REQUIRED HYDRAULIC LOADING RATES****1. RESIDENTIAL WASTEWATER****Sewage Treatment Plant (Surface Discharge) & Central Subsurface Sewage Treatment**

Pursuant to Department of Environmental Conservation publication, entitled, "Design Standards For Wastewater Treatment Works."

Individual Subsurface Sewage Treatment (on lot)

Detached Single-Family Homes 150 gpd/bedroom

2. RESIDENTIAL WATER - (PUBLIC WATER SUPPLY SYSTEMS)

Pursuant to Department of Environmental Conservation publication, entitled, "Design Standards For Wastewater Treatment Works."

APPENDIX C

REQUIRED LENGTH OF ABSORPTION TRENCH

**(Based upon 2 ft. wide)
FLOW RATE (GALS/DAY)**

PERCOLATION RATE		Sewage Application	2 Bedrooms	3 Bedrooms	4 Bedrooms	5 Bedrooms	6 Bedrooms
	Min/inch	GPD/SF	300	450	600	750	900
	1-7	1.0	150	225	300	375	450
	8-10	0.9	167	250	333	417	500
	11-15	0.8	188	281	375	469	563
	16-20	0.7	214	321	429	536	643
	21-30	0.6	250	375	500	625	750
	31-45	0.5	300	450	600	750	900
	46-60	0.45	333	500	667	833	1,000**
Dosing Not Required				Dosing			

← **SEE * BELOW** →

Soil with a percolation rate of less than 1 min./inch is unsuitable for a conventional system
$\text{Required Area (sq.ft)} = \text{Flow Rate (GPD)} / \text{Application Rate (GPD/sq.ft)}$
$\text{Required Absorption Field Length} = \text{Required Area (sq.ft)} / 2 \text{ ft. (trench width)}$

* Systems containing greater than 500 LF shall utilize a distribution box with speed levelers on all outlets.

** Alternate dosing required

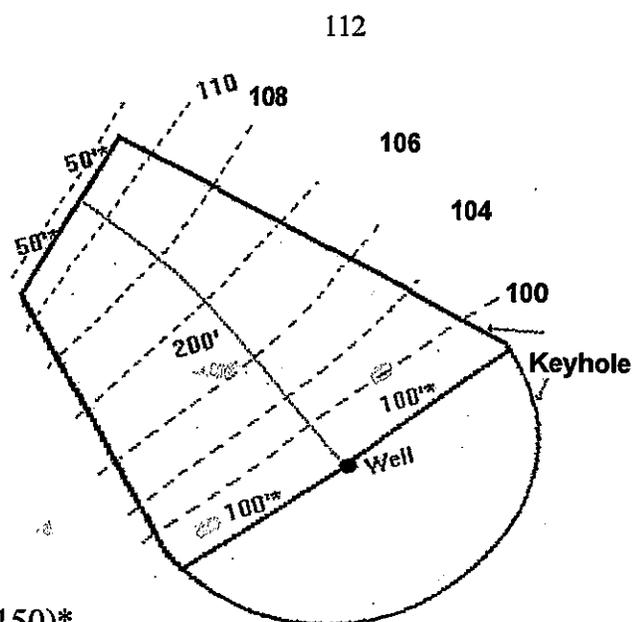
APPENDIX D

DIRECT LINE OF DRAINAGE DETERMINATION

Purpose:

The minimum separation distance between a well and a SSTS is 100 (150)* feet when the well is located upgrade or at the same elevation as the SSTS. When the well is downgrade and in direct line of drainage, increased distances are necessary. Such increased distance is determined as follows:

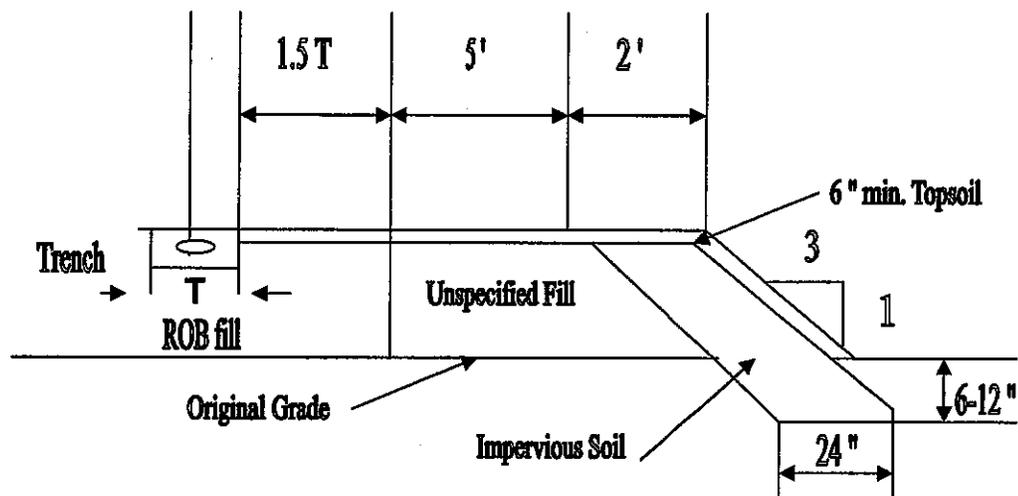
1. Draw two 100 (150)* ft. lines, one on each side of the well, parallel to the contours.
2. Draw a 200 ft. line uphill from the well and perpendicular to the contours. In some cases, this may be skewed due to the topography.
3. At the end of the 200 ft. line, draw two 50 (75)* ft. lines parallel to the contours.
4. Connect the ends of the 50 (75)* and 100 (150)* ft. lines.
5. Draw a semi-circle with radius of 100 (150)* ft. around the well.



No portion of the SSTS can be located within the boundaries of the direct line of drainage keyhole figure created.

()* for seepage pits, leaching galleys or flow diffusers.

APPENDIX E
FILL SECTION DETAIL
(N.T.S.)



Fill pad material (ROB gravel) must extend a minimum distance equal to or greater than 1.5 times the trench width beyond the sidewall of the trench. After fill pad material, there must be 5 feet of additional unclassified pervious soil with the final 2 feet being impervious soil with a one (1) vertical to three (3) horizontal slope. The toe of the slope shall extend into the virgin soil 6 to 12 inches deep and 24 inches wide. Topsoil shall be applied in accordance with Appendix 75-A, Section 75-A.9 (b-4-iv).

APPENDIX F**PUTNAM COUNTY DEPARTMENT OF HEALTH****REALTY SUBDIVISION GENERAL NOTES**

1. The Putnam County Department of Health requires a Construction Permit Application be submitted for approval for each individual subsurface sewage treatment system (SSTS) prior to the issuance of building permits by the local municipality.
2. All individual water supplies shall be drilled wells.
3. All drilled wells shall be constructed in accordance with the New York State Health Department 10NYCRR Appendix 5B, Standards for Water Wells.
4. All wells shall be pump tested for a minimum of 6 hours and have a minimum safe yield of 5 gallons per minute.
5. The Putnam County Department of Health approval is based on locations of SSTS, wells, house and driveway locations being maintained as shown. All modifications to have prior Putnam County Department of Health approval.
6. Unauthorized modifications made to this drawing after the date of Putnam County Health Department approval or any misinformation and/or erroneous data voids said approval.
7. No cut or fill is permitted in the SSTS area, except if so specified on the approved plan.
8. All stone walls in and within 10 feet of the SSTS area shall be removed to their entire depth and the resulting void replaced with similar on site soil.
9. Purchasers of lots to be furnished with a true copy of this plan as approved by the Putnam County Department of Health together with a copy of the Certificate of Approval.
10. The conditions noted on the Putnam County Department of Health Certificate of Approval are an integral part of this subdivision approval and compliance is required.
11. The area delineated for primary and reserve SSTS areas are to be physically marked on the ground and no earth moving or construction equipment, building equipment or excavated earth is to be allowed in these areas except as required for construction of the system.
12. It is the intention of this plan that wells to be a minimum of 100 feet from absorption trenches, except when a well is downhill and in direct line of drainage with the SSTS, then the minimum distance shall be 200 feet.
13. Flow from all proposed dwellings to the SSTS areas to be by gravity except if so noted in the SSTS schedule.
14. The SSTS designs do not provide for the installation of garbage grinders. Such installations require additional design and the approval of the Putnam County Health Department.
15. Approval is herewith granted for at total of _____ lots only, namely lots _____, and these lots only.

APPENDIX G

PUTNAM COUNTY DEPARTMENT OF HEALTH

APPROVAL LEGENDS

“NON-JURISDICTIONAL” APPROVAL STATEMENT

This is to certify that the division of land as represented on this map does not fall within the definition of subdivision as specified in Section 1115 of the Public Health Law, and Section 1117 of the Public Health Law, and therefore, is not applicable. This map in no way explicit or implied, conveys the approval of the Putnam County Department of Health. Approval of this plat is not required, but all other provisions of the Putnam County Sanitary Code apply.

BY: _____ DATE: _____

Environmental Health Services

“JURISDICTIONAL” APPROVAL STATEMENT

Approved subject to the provision of a private (public) water supply and private (public) sewage treatment system for each habitable lot in accordance with the Putnam County Sanitary Code and as shown on the Realty Subdivision Plan as filed with the Putnam County Department of Health. Consent is hereby given for the filing of this map in the Office of the County Clerk in accordance with the provisions of Sections 1116 and 1117 of the Public Health Law.

BY: _____ DATE: _____

Environmental Health Services

Expiration Date: _____

APPENDIX I

FEES

	<u>FEE</u>
1. Filing Fee – Realty Subdivision.....	\$25/lot
2. <u>Water Supply and Sewage Treatment Facilities</u>	
a. Review fee for subsurface treatment or sewage treatment plant with collection system.....	\$300/lot
b. Review fee for individual well water supply or water treatment plant with distribution system.....	\$300/lot
c. Review fee for sewage collection system only.....	\$100/lot
d. Review fee for water distribution system only.....	\$100/lot

NOTE: Subdivisions involving existing facilities are exempt from the above fees, except for the filing fee.

Payment of Fees

Payment of all fees required by the Putnam County Sanitary Code shall be by **CERTIFIED CHECK OR MONEY ORDER** payable to the Putnam County Health Department. Cash payments will not be accepted.

Fee shall be payable at the time an application is made. Applications will not be processed unless they are accompanied by the proper fees.

APPENDIX J
Summary of Delegation Agreement between
NYC Department of Environmental Protection &
Putnam County Department of Health

This document is intended to serve both as a summary of the delegation agreement between the DEP and the Department for SSTS review and approval and as a guide to the Design Professionals submitting SSTS projects to the Department for approval. The effective date of the delegation agreement will be determined at a future date.

Applicable Regulations: Include NYSHD Appendix 75-A, the NYCDEP Watershed Rules and Regulations, PCHD Bulletins ST-19, RS-21 and CS-31, and NYSDEC standards for Intermediate Sized Wastewater Treatment Works. The most stringent of the applicable standards will apply and are listed in Attachment C of the delegation agreement which is provided on page 33.

Application Procedures: All applications will be submitted to the Department and the Department will be responsible for forwarding a copy of each application received to the DEP. The Department will be the primary contact for scheduling field inspections and for transmitting comments/receiving responses to comments. These procedures will be followed for both delegated and non-delegated lots. The Department has agreed to abide by the time frames as set forth in the DEP Watershed Rules & Regulations of Individual SSTS.

Delegation of Individual SSTS: While the Department will continue to exercise its own authority in the review and approval of SSTS projects, delegation of DEP authority to the Department will allow approvals to occur as follows:

1. New Subdivisions: The Department is delegated approval for all SSTS on all new subdivisions except as expressly described below. As part of the delegation agreement, the Department has agreed to witness soil percolation tests on all lots.
2. Individual lots: The Department is delegated approval for all SSTS on individual lots not appearing on a filed subdivision plat except as expressly described below. The Department will inspect deep test holes and witness soil percolation tests on all lots not appearing on a subdivision map.
3. Joint approval by the Department and the DEP is required for SSTS construction of all of the following lots, even if they appear on a previously approved subdivision: within the drainage basins of West Branch Reservoir or Boyd's Corner Reservoir; SSTS within 500 feet of any reservoir, reservoir stem or controlled lake; SSTS within 200 feet of a watercourse or a DEC mapped wetland; any SSTS with a design flow greater than 1,000 gpd; any commercial system; and any other subsurface system requiring a SPDES permit.

SSTS Delegation with Respect to Previously Approved Subdivisions:

The Department will require that all SSTSs in previously approved subdivisions be designed to meet all current standards, to the extent the Department determines possible. DEP agrees to

accept realty subdivision approvals issued by the Department or NYSDOH prior to January 21, 1997, except as follows:

1. All SSTSs which are proposed to be located either within the drainage basis of Boyd's Corner Reservoir or West Branch Reservoir or within 500 feet of a reservoir, reservoir stem or controlled lake, and which have not been approved by DEP shall require DEP approval.
2. All SSTSs which are proposed to be located within 200 feet of either a watercourse, as defined in the Watershed Regulations, or a DEC mapped wetland, and which received final realty subdivision approval after December 31, 1992 but which have not been approved by DEP shall require DEP approval; and
3. PCHD and DEP shall work together to require all SSTSs which are proposed to be located within 200 feet of either a watercourse, as defined in the Watershed Regulations, or a DEC mapped wetland, and which received final realty subdivision approval on or before December 31, 1992 but which have not been approved by DEP to meet all current standards, including the Watershed Regulations to the extent possible.

Flagging

An applicant may want to have its site flagged for the official boundaries of reservoirs, reservoir stems, controlled lakes, watercourses and wetlands. Requests for flagging of reservoirs, reservoir stems, controlled lakes and watercourses should be made to:

Deputy Chief, Engineering Section
 NYSDEP
 465 Columbus Avenue
 Valhalla, NY 10595
 914-773-4418

Requests for the flagging of wetlands should be made to:

NYS Department of Environmental Conservation
 Division of Natural Resources
 21 South Putt Corners Road
 New Paltz, NY 12561-1696
 914-256-3000

Approval Time Limits

The Department must comply with the time limits in the City's Watershed Regulations in review and approval of SSTS applications. Upon receipt of an application, the Department will determine if it contains all information necessary to be considered complete. Notification of completeness or incompleteness must be sent by the Department within 10 calendar days of receipt for conventional individual SSTSs for a residence not in a subdivision, or within 20 calendar days for all others. If additional information is requested, the Department must notify the applicant whether or not the application is complete within 10 calendar days of receiving the requested information. The Department may request further information only based on the additional information submitted by the applicant, or issues raised by such new information.

If the Department fails to provide notification to the applicant within these time periods, the applicant may notify the Department of its failure to do so, by writing to the Department by certified mail, return receipt requested. In order to expedite this process, the notice should contain the applicant's name, the project name (if applicable), and the location of the project. If the Department does not notify the applicant as to completeness within 10 business days of receiving the applicant's letter, the application will be deemed complete. In cases where additional information has been requested, the amended application is the one which will be deemed complete.

The Department must notify the applicant in writing of its approval or disapproval of the complete application within a fixed time period, depending on the type of SSTS involved. For a conventional individual SSTS for an individual residence not in a subdivision, the Department must notify the applicant within twenty (20) calendar days of the notice of complete application. For all other SSTS applications, the Department must notify the applicant within forty-five (45) calendar days. These time periods may be extended by agreement.

If the Department fails to notify the applicant of its approval or disapproval within the 20 or 45 day period, the applicant may notify the Department of its failure to do so by writing to the Department by certified mail, return receipt requested. The notice must contain:

- the applicant's name;
- the project name (if applicable);
- the location of the proposed project;
- the office in which the application was filed; and
- a statement that a decision is sought, in accordance with Section 18-23(d)(6).

Any notice which does not contain the above information will not invoke this provision. If the Department fails to provide a determination to the applicant in writing within ten (10) business days of receipt of such a notice, the applicant will be deemed approved subject to the following standard conditions:

- The project must be complete in compliance with the plans as submitted, all applicable accepted standards, and all applicable laws, rules, and regulations. Any alteration of the plans must be approved by the Department prior to construction.
- The applicant must notify the Department at least forty-eight (48) hours prior to the commencement of the construction activity so that inspections can be scheduled by the Department.
- Within 30 days of completion, a Certification of Construction Completion and as-built plans must be submitted to the Department by a Design Professional.
- The approval will expire unless construction is commenced within 5 years for SSTSs located in subdivisions, or 2 years for all other SSTSs.

SEORA Compliance

If the project is subject to review under SEQRA and the lead agency for the project has determined that the project may have a significant effect on the environmental for the purposes of SEQRA, the time periods specified above will be suspended until either a Final

Environmental Impact Statement or a determination of non-significance has been submitted to the Department.

NOTE: DEP's delegation of administration of Section 18-38 of the City's Watershed Regulations to the Department does not affect DEP's status as an involved agency under the State Environmental Quality Review Act ("SEQRA"). All submissions to the lead agency required under SEQRA for projects involving a new SSTS should also be sent to DEP as an involved agency.

ATTACHMENT C

1. Pursuant to paragraph 4 of this Agreement, the following list represents the most stringent requirements set forth in 10 NYCRR Part 75 and APPENDIX 75-A, the NYCDEP Watershed Rules and Regulations, the PCHD Policies and Procedures and the NYSDEC Design Standards (1988) as of October 19, 1995. If any of the standards change subsequent to the effective date of this Agreement, this list may be changed and updated as needed to incorporate any amendments to the underlying regulations and standards.
 - A. Design sewage flow to be 200 gallons per day per bedroom with a recommended minimum of 260 gallons per day per house. (PCHD, NYCDEP).
 - B. Maximum application rate of one (1) gallon per day per square foot for percolation rates between 3 and 7 minutes per inch. (PCHD)
 - C. A minimum of 5 feet of soil is required between the bottom of the absorption system and ledge rock or other impervious layer. (PCHD)
 - D. A minimum of 4 feet of unsaturated, useable soil is required between the bottom of the absorption system and groundwater. (PCHD)
 - E. Fill may be used to meet the separation distances required in "C" and "D" above, provided that 42 inches of useable, in-situ soil exists on the site. No more than 42 inches of fill may be brought to the site to obtain these separation distances. Such a system is considered "conventional". Suitable fill material shall consist of only run-of-bank sand and gravel. Fill stabilization may be achieved by mechanical compaction in six-inch lifts or by a natural settling period of at least six months which includes a freeze-thaw cycle. Percolation tests must be conducted in the stabilized fill and range from three to thirty minutes per inch. (PCHD)
 - F. A minimum 100 % replacement area must be available. (PCHD)
 - G. Soil percolation tests to conform to procedures in Appendix A – Procedures for Running Soil Percolation Tests in PCHD document entitled "Program Revisions & Policies, Subsurface Sewage Disposal & Water Supply Facilities for Single Family Residences." Acceptable percolation rates can range from 3 to 60 minutes per inch.
 - H. Raised systems, mounds, intermittent sand filters, evaporation – transpiration systems, gravelless systems and experimental systems, as defined in Appendix 75-A, are not permitted SSTS's in the watershed for new systems. (PCHD)
 - I. Installation of absorption trenches in "in-situ" soil on slopes between 15 and 20 percent may occur without modification provided a minimum horizontal separation distance of 10 feet, center-to-center, is maintained between parallel absorption trenches and there is at least four feet of vertical separation between the bottom of absorption trenches and

impermeable strata or high groundwater. (PCHD)*

- J. Setback distance for "conventional" systems is 100 feet from a watercourse or wetland and 300 feet from reservoirs, reservoir stems and controlled lakes. (NYCDEP)
 - K. No portion of an absorption field will be constructed under pavement or other impervious surface. (NYCDEP)
 - L. Deep hole tests are to be dug to a minimum of 84 inches, where possible. (PCHD)
2. For those sites where the groundwater or distinct mottling is observed within 30 inches from grade, testing of the effectiveness of the curtain drain must be performed in accordance with accepted NYSDOH procedures for method, location and setbacks. The effectiveness of the curtain drain must be determined during a representative high groundwater period. The PCHD may determine the acceptable measures for determining the effectiveness of subsurface drains whenever groundwater levels or distinct soil mottling is observed greater than or equal to 30 inches below grade of in-situ soil.

APPENDIX K**APPLICATION FORMS**

1. Realty Subdivision Application (GEN 157)
2. Application For Approval of Plans For A Wastewater Treatment System (PC-97)
3. Design Data Sheet (DD-97)
4. Affidavit Corporate Owner Application (CA-97)
5. Well Permit Application (WP-97)
6. Well Completion Report (WC-97)
7. Application to Abandon a Water Well (WA-97)
8. Well Abandonment Report (WAR-97)
9. Application For Approval of Plans For Public Water Supply Improvement (DOH-348)
10. Short Environmental Assessment Form (EAF)