

ERIE COUNTY DEPARTMENT OF HEALTH
DIVISION OF PUBLIC HEALTH LABORATORIES AND ENVIRONMENTAL HEALTH
OFFICE OF ENVIRONMENTAL HEALTH SERVICES

DESIGN AND PLAN REVIEW REQUIREMENTS

This Summary of Submittal Requirements for Plan Review Covers the Following Types of Plan Reviews (For Private Sewage plans, please see separate private sewage document):

1. Public Water Supplies
2. Sanitary Sewers
3. Sanitary Sewer Service Connections > 2500 gpd
4. Realty Subdivisions
5. Swimming Pools, Whirlpool/spas and Bathing Beaches

1.0 **Public Water Supplies:** Approval is required for any new water supply (source), changes or additions to existing water treatment facilities, and any extensions or replacements of distribution system lines. Note: New groundwater supplies in excess of 20 gallons per minute, and new or expanded surface water supplies must be approved by the New York State Department of Environmental Conservation (NYSDEC).

1.1 **Requirements:**

- 1.1.1 A completed DOH-348 Form – Application for Approval of Plans for Public Water Supply Improvement (original).
- 1.1.2 One Engineers Report, including construction specifications.
- 1.1.3 One initial review set of plans and then 3 sets of final construction plans, signed with original P.E. stamp.
- 1.1.4 Review fee check for \$226.00 payable to the Erie County Commissioner of Finance. ***Any project received without the proper application and review fee will not be reviewed.***
- 1.1.5 Any project that is federally funded must be submitted to the New York State Department of Health, Bureau of Water Supply Protection for review and approval. One copy of the plans and engineer's report should be submitted to this Department for review (no fees required).

Please Note: Although form DOH-348 states that three sets of plans, 3 sets of specifications and an engineer's report be submitted we request that you submit only one set of plans, the section of the specifications that relates to water line hydrostatic testing and disinfection procedures, and the engineer's report for review to this Department.

1.2 **Reference requirements:**

- 1.2.1 New York State Sanitary Code – Part 5.
- 1.2.2 Recommended Standards for Water Works, 2002, Water Supply Committee of the Great Lakes.
- 1.2.3 New York State Sanitary Code – Appendix 5-B and 5-D.
- 1.2.4 American Water Works Association Standards (AWWA).

1.3 Construction Project Completion Requirements:

- 1.3.1 Completed Works Approval – Before placing any approved project into service, the following items must be submitted to the responsible public water supplier in order for the Erie County Health Department to issue Completed Works Approval to the public water supply.
 - 1.3.1.1 Certificate of Construction Compliance – form must be signed by Licensed Professional Engineer responsible for inspecting the construction.
 - 1.3.1.2 Bacteriological Sampling Results – A sample location plan must be provided, field tests for chlorine residual before and after flushing should be made and recorded for each sampling location, and the residual level should not exceed the background level in the distribution system.
 - 1.3.1.3 Hydrostatic Test Results
- 1.3.2 Once the public water supplier approves the project to be placed into service for the entire project, form ECDOH – PWS- 103-04/04 must be submitted to this Department with copies of the hydrostatic test results and all bacteriological results. A final Completed Works Approval will be issued once review of all submitted information is completed by this Department.

2.0 Sanitary Sewers: Approval is required for all projects involving an extension or replacement of existing municipal, sewer district or sewer works corporation collection systems. Approval is also required for private sewerage facilities serving condominiums, which include ownership of all, or a portion of the land under the condominium(s).

2.1 Requirements:

- 2.1.1 A complete review package includes at a minimum the following:
 - 2.1.1.1 Application for Approval of Plans for a Wastewater Disposal System.
 - 2.1.1.2 A check for the plan review fee of \$300 per project (includes first six lots) plus \$50 per new lot or lateral greater than six. ***Any project received without the proper application and review fee will not be reviewed.***
 - 2.1.1.3 One signed and stamped engineering plans with location map for review. The number of final sets will vary.
 - 2.1.1.3.1 Typically for projects located within or tributary to an Erie County Sewer District, **THREE** sets of the above are to be submitted to Erie County Department of Environment and Planning-Division of Sewerage Management. One set of the application package will then be sent to the ECHD for coordinated review. Please note: Any information pertaining to the downstream sewer capacity, SEQR compliance, regulatory permits and water portions of the project must be included within the engineer's report for Sewerage Management to forward to this Department.
 - 2.1.1.4 One engineering report.
 - 2.1.1.5 One BMW-65 Form (92-15-8) – Project Data for Sewage and Waste Treatment Systems, Technical Review of Plans/Specifications.

- 2.1.1.6 Detailed downstream routing of sewers and a brief narrative, and applicable downstream sewer capacity documentation (either owner letters or information).
- 2.1.1.7 Documentation substantiating SEQRA compliance.
- 2.1.1.8 Regulatory permits (i.e. Protected Stream, Water Quality Certification).

2.2 Review Requirements:

- 2.2.1 Ten State Standards, “Recommended Standards for Wastewater Facilities”

2.3 Construction Completion:

- 2.3.1 Written certification from a professional engineer documenting that the sanitary sewers were constructed in accordance with the approved plans, including results of all leakage and deflection tests.

3.0 Sanitary Sewer Service Connections >2500 gpd: Approval is required for all projects involving a service connection to an existing municipal, sewer district or sewer works corporation collection system that has a daily flow rate of greater than 2500 gallons per day.

4.0 Realty Subdivisions: Approval required for realty subdivisions as defined by Public Health Law – Section 1115 to 1120

4.1 Requirements

- 4.1.1 A completed GEN-157 form (original), Application for Approval of Sanitary Facilities for Realty Subdivision.
- 4.1.2 Review fee check, payable to Commissioner of Finance in the amount of \$25.00 per lot. **Any project received without the proper application and review fee will not be reviewed.****
- 4.1.3 One paper print of the subdivision map cover, signed with original P.E. stamp. Any additional prints or mylars of the map cover that may be required for other agencies should also be submitted.
- 4.1.4 Copy of the approval paperwork for the sanitary sewers or individual site wastewater treatment.
- 4.1.5 Copy of the approval paperwork for the water supply.
- 4.1.6 For realty subdivision development (any residential development where land is sold to each unit owner) containing “common ground” and utilizing common private utilities (i.e. private waterlines and sanitary sewers), a Homeowners Association Offering Plan must be included that meets DEC requirements for sanitary facility repairs and must be accepted by the State of New York Attorney General’s Office.

* Please note on the submittal if the project is a Re-stamp only and the reason for the re-stamp.

* If any of the above items are missing from the submittal it may cause a significant delay in the review and approval of the project.

4.2 Review References:

- 4.2.1 New York State Sanitary Code – Part 74
- 4.2.2 Public Health Law, Sections 1115 to 1120

5.0 **Swimming Pools, Bathing Beaches and Whirlpools/Spas** – Approval required for any new facility or any equipment additions or changes to an existing facility.

5.1 Requirements:

- 5.1.1 A completed GEN – 134 form (original), Application for Approval of Plans and Specifications for Construction or alterations to an artificial swimming pool and appurtenances.
- 5.1.2 One Engineer's Report (DOH – 1309 form, Engineering Report for Swimming Pool Plans, specifications including a copy of pump performance curves and manufacturer's equipment brochures.
- 5.1.3 One set of construction plans for review. 3 sets of construction plans will be required for final approval.
- 5.1.4 Review fee for \$300.00 made payable to the Commissioner of Finance.
*Any project received without the proper application and review fee will not be reviewed.***

5.2 Review References:

- 5.2.1 New York State Sanitary Code – Part 6

5.3 Construction Completion:

- 5.3.1 Certificate of Construction Compliance by licensed professional engineer or architect that the pool facilities were constructed in accordance with approved plans.

Please note any submittal received without the application and/or review fee check will not be reviewed. Review will only be started when the application and review fee check have been received

Copies of all applications mentioned above are available on our website at www.erie.gov/health (coming soon).

Requests for copies of review references or questions about specific review procedures can be answered by calling, emailing to jennifer.delaney@erie.gov or writing to:

Erie County Health Department
503 Kensington Ave
Buffalo, New York 14214
(716) 961-6800

**ERIE COUNTY DEPARTMENT OF HEALTH
ON-SITE WASTEWATER TREATMENT SYSTEM
DESIGN AND PLAN REVIEW REQUIREMENTS
FOR DESIGN PROFESSIONALS**

As of July 1, 2012, all new construction residential Onsite Wastewater Treatment Systems (OWTS) in Erie County must be designed by a licensed design professional (i.e. a licensed professional engineer, a registered architect, or a licensed land surveyor with an exemption certificate (Section 7208n of New York State Education Law)) hired by the applicant. The plans must then be submitted to the Erie County Department of Health for review and approval.

The Erie County Department of Health (ECDOH) is responsible for the review and approval of individual onsite wastewater treatment systems where the design flow is less than 10,000 gallons per day, the flow does not contain industrial wastes, and the basic treatment is not a full package (mechanical) treatment plant. All other systems are approved by the New York State Department of Environmental Conservation (NYSDEC).

If the design flows exceed 1,000 gallons per day, an approved discharge permit (SPDES) from the NYSDEC must be obtained as part of the approval process.

ECDOH Application and Fee – See attached application:

An ECDOH review fee of \$300.00 is required. Checks should be made payable to the Erie County Commissioner of Finance. **Please note that review of the submittal will not start until an application and fee are both received. Also, the review can not be started unless all components of the plan submittal are received as listed below.**

Engineers Report Requirements:

1. Indicate the proposed use of the premises to be served by the system.
2. Indicate and justify flow estimates based on the flows listed in the New York State Department of Health and New York State DEC publications or based on water use records from the existing facility or a facility with a similar usage.
3. A soil profile based on one deep hole per system (minimum of 6 feet deep) must be performed under the supervision of the design professional. It must define the soil types, bedrock and seasonally high ground water (mottling must be documented if seasonally high groundwater is not present). At least two percolation tests must be completed in the area of the proposed private sewage disposal system. The results of all percolation tests run on the property must be included in the engineers report. At the time of application or during the design it may be required that some or all of the soil and percolation tests be witnessed by the Erie County Department of Health. Soil tests for subdivision development must also be witnessed by the Erie County Department of Health.

4. Design Criteria:
 - a. New York State Sanitary Code Part 75-A (Wastewater Treatment Standards) and Residential Onsite Wastewater Treatment Systems Design Handbook for flows less than 1,000 gpd or New York State Department of Environmental Conservation Design Standards for Wastewater Treatment Works for Intermediate Sized Sewerage Facilities for flows greater than or equal to 1,000 gpd, and any other applicable standards of the Commissioner of Health.
 - b. Minimum residential tank size is 1,500 gallons. Add 250 gallons of additional capacity for every bedroom over four. Commercial septic tank size is based on flows and shall be at least equal to 1.5 times a day's estimated flow.
 - c. Septic tanks shall be dual compartment or single compartment tanks in series.
 - d. If mechanical dosing or pumping is required the dose volume shall be 75% of the total hydraulic volume of the tile lines.
 - e. The following must be installed:
 - i. An outlet filter such as a Zabel or O.S.I. filter in the septic tank.
 - ii. Speed levelers in the distribution boxes. (gravity systems only)
 - iii. An audible/visual alarm inside the home or business on a separate electric circuit for all pump facilities.

Plans and Specification Requirements:

1. One set of plans for the initial review and four sets signed and stamped by the NYS design professional for final approval.
2. A site plan detailing the location of all existing and proposed buildings, existing and proposed onsite wastewater treatment system components (with adequate offsets to the septic tank, distribution box, and any pump tanks per NYS regulations), deep test hole, percolation tests, any new or existing private wells within 200 feet of the proposed sewage system, utilities, water service, driveway, pools, sheds, road right of ways and easements, property lines, wetlands, ponds, drainage ways, streams, ten year and 100 year floodplains, and any other significant construction or obstructions which may impact the location of the onsite wastewater treatment system.
3. Show all required separation distances as listed in the applicable references listed above under "Engineers Report Requirements".
4. Show the specifications and details for all system components such as septic tanks, distribution boxes, pump tanks, etc. All pipe sizes and slopes must be shown.
5. Show the pump on/off and alarm levels on the pump tank detail.
6. Show the well locations for the property and all neighboring properties.
7. Indicate slope and drainage patterns or contours at site of proposed system. Indicate method of diverting surface run-off away from the onsite wastewater treatment system.
8. Include specifications for filter sand and that it must come from an approved source.
9. Include specifications and testing requirements for compacted fill.
10. Include a table listing the finished elevations for each component of the onsite wastewater treatment system.

System Options Acceptable in Erie County:

1. Conventional tile field in natural soil. Soils must have a percolation rate between 1 and 60 minutes, however systems in soils having percolation rates less than 5 minutes must be designed for a 5 minute rate (the minimum allowable design rate). Systems may be allowed with rates of less than one minute if Erie County Department of Health specified special provisions are constructed. Gravel in this system may be replaced with tire chip aggregate with Erie County Department of Health approval.
2. Gravel-less trench systems may be used in place of conventional tile field in natural soil systems with a 25 % reduction in required trench length.
3. Conventional system – shallow absorption trenches. Minimum of two feet of percable soil on the site, acceptable fill and trench bottoms must be at least two feet above groundwater or any impermeable layer.
4. Conventional system – deep absorption trenches.
5. Sand filter with downstream modified shallow absorption trench system. Allowed only if a conventional system is not feasible or natural soil percolation rates are greater than 60 min/in. The downstream shallow trench system must be placed parallel to a water or drainage course. An inspection port with a child proof lockable cover located at the discharge end of the sand filter is required. May not be used in new subdivisions.
6. Sand filter with downstream absorption mound. Allowed only if a conventional system is not feasible or natural soil percolation rates are greater than 60 min/in. The downstream mound is used for systems that a downstream shallow trench is not feasible. An inspection port with a child proof lockable cover located at the discharge end of the sand filter is required. May not be used in new subdivisions.
7. Seepage pits will be considered if no other system is feasible for the property.
8. Tile field in fill systems will be permitted only when conventional in ground systems cannot be used. There must be less than 24 inches of percable soil on site, but a minimum of 12 inches. Fill that is brought on site must be naturally stabilized for six months or mechanically stabilized and retested under the supervision of a licensed professional. May not be used in new subdivisions.
9. Other alternative systems may be considered for lots that are difficult to fit any of the above systems. For consideration of an alternative system please submit all documentation in regards to the system with your package (include specification sheets, research, test project information, etc.) May not be used in new subdivisions.

Lot Size:

All installations must meet the minimum separation requirements contained in the New York State Department of Health's Residential Onsite Wastewater Treatment Handbook. The minimum lot size required for alternative treatment systems (items 5, 6 and 8 above) is 32,000 square feet, if the lot was created after December 1988.

Construction Inspection:

1. A design professional must certify the construction of all systems except for modifications of existing systems designed by the Erie County Department of Health. A contractor's sketch of the system and location with dimensions and offsets to permanent structures, the sand receipts or percolation test results for fill systems, and a signed copy of the Construction Compliance (see attached) must be submitted to this Department prior to issuance of a Completed Works Approval by this Department.
2. Record (as-built) drawings must be submitted for any project with modifications or offsets that vary greater than three feet from the approved plans.
3. The Erie County Department of Health will collect a bacteriological sample from all newly constructed wells. This must be completed prior to a Completed Works Approval will be issued for the onsite wastewater treatment system.
4. For newly installed wells the well log must also be included with the Construction Compliance.
5. If a system requires the use of fill this must be thoroughly tested by the design professional to ensure it is satisfactory and the results submitted upon completion of the system.

Permit Duration:

The approval and permit issued by the Erie County Department of Health will expire three years from the date issued. Please note, if the project is for the replacement of an existing failed system the permit will be valid for 90 days. A new application, fee and review package may be required for an expired permit.