

ERIE COUNTY HEALTH DEPARTMENT
ENVIRONMENTAL HEALTH SERVICES
DESIGN AND PLAN REVIEW REQUIREMENTS

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

1. Public Water Supplies
2. Sanitary Sewers
3. Realty Subdivisions
4. 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, 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 engineers 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 only submit 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 supply 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 supply 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.

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”
- 2.2.2 Erie County “Guide for Sewer Plan Approval Applications”

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

3.1 Requirements

- 3.1.1 A completed GEN-157 form (original), Application for Approval of Sanitary Facilities for Realty Subdivision.
- 3.1.2 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.***
- 3.1.3 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.
- 3.1.4 Copy of the approval paperwork for the sanitary sewers or individual site wastewater treatment.
- 3.1.5 Copy of the approval paperwork for the water supply.
- 3.1.6 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.

3.2 Review References:

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

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

4.1 **Requirements:**

- 4.1.1 A completed GEN – 134 form (original), Application for Approval of Plans and Specifications for Construction or alterations to an artificial swimming pool and appurtenances.
- 4.1.2 One Engineers Report (DOH – 1309 form, Engineering Report for Swimming Pool Plans, specifications including a copy of pump performance curves and manufacturer’s equipment brochures.
- 4.1.3 One set of construction plans for review. 3 sets of construction plans will be required for final approval.
- 4.1.4 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.***

4.2 **Review References:**

- 4.2.1 New York State Sanitary Code – Part 6

4.3 **Construction Completion:**

- 4.3.1 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 caseyt@erie.gov or writing:

Erie County Health Department
95 Franklin Street
Room 931
Buffalo, New York 14202
(716) 858-6089

**ERIE COUNTY HEALTH DEPARTMENT
PRIVATE SEWAGE DISPOSAL SYSTEM
DESIGN AND PLAN REVIEW REQUIREMENTS
FOR DESIGN PROFESSIONALS**

The Erie County Health Department (ECHD) is responsible for the review and approval of individual sewage disposal 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.

Application and Fee – See attached application:

A review fee of \$300.00 is required. Checks should be made payable to the 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 State Health and 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 5 feet deep) must be performed under the supervision of the design engineer. It must define the soil types, bedrock and seasonally high ground water (mottling must be documented if seasonally high groundwater is not present). The results of all percolation tests run on the property. 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 Health Department. Soil tests for subdivision development must also be witnessed by the Erie County Health Department.
4. Design Criteria:
 - a. Part 75-A (Wastewater Treatment Standards) of the New York State Sanitary Code and Individual Residential Wastewater Treatment Systems Design Handbook for flows less than 1000 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 1000 gpd, and any other applicable standards of the Commissioner of Health.
 - b. Septic tank size shall be at least equal to 1.5 times a day's estimated flow. (Minimum residential tank size is 1500 gallons, commercial based on flows.)

- 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.
 - iii. An audible 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 three sets signed and stamped by the NYS design professional for final approval. Four sets of signed and stamped NYS design professional plans are required for final approval for systems with daily flow rates greater than 1000 gpd.
2. A site plan detailing the location of all existing and proposed buildings, existing and proposed private sewage system components (with adequate offsets to the septic tank, distribution box, and any pump tanks), 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 sewage disposal 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 construction information including depth if required.
7. Indicate slope and drainage patterns or contours at site of proposed system. Indicate method of diverting surface run-off away from the private sewage system.
8. Include specifications for filter sand and that it must come from an approved source. Include specifications and testing requirements for compacted fill.

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 Health Department specified special provisions are constructed. Gravel in this system may be replaced with tire chip aggregate with Health Department 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 State Health Department's Waste Water Treatment Handbook. The minimum lot size allowed for systems in natural soil (items 1-4 above) is approximately 20,000 square feet if public water is available. Larger lot sizes will be required if a private well is to serve the property. The minimum lot size required for items 5 and 6 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 Health Department. A completed and signed copy of the 'Erie County Health Department, Environmental Health Services, Professionally Designed Construction Inspection Checklist' (see attached), a contractor's sketch of the system and location with dimensions and offsets to permanent structures, and a signed copy of the Certificate of 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. As part of the construction inspection the design professional must perform a private well sanitary survey for any new or existing water wells. This shall include the location of the well relative to any sewage systems, drainage patterns surrounding the well, well cap adequacy and visible well casing condition. One bacteriological test (total coliform) must be conducted as part of the inspection and the results submitted with the Certificate of Construction Compliance and checklist.
4. The contractor or design professional must contact ECHD at least three days prior to the start of construction of the system to discuss the inspection schedule for a specific project. Failure to notify the Department will result in portions of the system being required to be dug up for verification of installation. This is to allow for random inspections by the ECHD. The Health Department may ask that a contractor dig up a portion of the system if they feel a construction problem is indicated by their inspection(s).
5. If a system requires the use of fill this must be thoroughly tested by the design professional to ensure it is satisfactory.

Permit Duration:

The approval and permit issued by the Health Department will expire in 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 60 days. A new application, fee and review package may be required for an expired permit.