

**CAYUGA COUNTY HEALTH DEPARTMENT  
ENVIRONMENTAL DIVISION  
WASTEWATER TREATMENT SYSTEM  
INSPECTION PROTOCOL**

This document provides a protocol for conducting wastewater treatment system inspections. This protocol is a minimum procedure for compliance with the inspection requirements of the Cayuga County Sanitary Code. Inspections will consist of three primary parts: (1) property and system information, (2) an owner interview and (3) inspection of the site. The Cayuga County Wastewater Treatment System Inspection Form must be used for recording all information.

**1. PROPERTY & SYSTEM INFORMATION**

- 1.1 Review available records such as original plans from the Cayuga County Health Department Environmental Division. Check the Septic Locator on the Cayuga County Health Department website.
- 1.2 If the records are insufficient, the property and system information will need to be obtained from the owner interview.
- 1.3 The information to be provided on the assessment form should be considered the minimum required information. The inspector must make every effort to complete as much information on the form as possible to accurately describe the site and system. Professional judgment must be used to provide additional information beyond that requested to ensure the site assessment is valid and useful.
- 1.4 Multiple dwellings with multiple systems will require separate reports for each dwelling. The inspector must inquire if other structures on the property have a septic system.

**2. OWNER INTERVIEW**

- 2.1 Ask the owner if they need a routine or property transfer inspection. If the owner has purchased the home since the last inspection, they may need a property transfer inspection. Call the Health Department if there is any question.
- 2.2 Notify the owner that if a failed system is discovered, the Health Department will be informed by the inspector within one business day of the inspection. A failure occurs if the evidence of dye or wastewater effluent is observed.
- 2.3 Ask "Owner Interview" questions and enter the information on the assessment form.
- 2.4 The listed questions should be considered a minimum. The inspector must use professional judgment in evaluating the responses from the owner. If the owner's responses are vague or inadequate, the inspector should ask additional questions to ensure clear and truthful answers.
- 2.5 The questions regarding water supply are intended to determine if the well may run out of water during the dye test.
- 2.6 The property owner or agent of the property owner must print their name and sign the form. If an agent signs the form, his/her title must be included

### 3. INSPECTION

One of two types of inspections is to be conducted: Routine or Property Transfer/Refinance. Professional judgment must be exercised in conducting these inspections. Some items may require a more thorough inspection and investigation than indicated by these procedures. **Inspections cannot be conducted if the ground is frozen or if there is snow cover on the parcel or adjacent parcels.** Note that included in the Certification Statement on page 3 there is a sentence stating that the inspector certifies that there is no snow on the property or adjacent properties and that the ground is not frozen. By signing the statement, you are verifying this to be the case.

Note: The Environmental Division does not require a refinance inspection; however, if the lending institution requires an inspection, the Division requires that the inspection be performed by a certified inspector following this protocol.

#### INSPECTION TYPES

3.0.1 Routine – conducted every two, three, five or seven years according to the schedule established by Cayuga County Sanitary Code.

3.0.2 Property Transfer/Refinance – conducted when a property is transferred as described in the Cayuga County Sanitary Code. Inspection should be performed prior to any recent pumping of septic tank.

Inspections will include: 1. inspection of the interior plumbing, 2. inspection of the wastewater treatment system, 3. dye testing.

3.0.3 Indicate on the assessment form the type of inspection conducted by checking the appropriate box.

3.0.4 Differences between information provided by the owner in the interview, Health Department records, and information obtained from the inspection should be noted in the comments section of the inspection form.

#### 3.1 Interior Plumbing

3.1.1 Inspection of the interior plumbing should be conducted for both Sanitary Code and Property Transfer inspections.

3.1.2 Check all plumbing discharges from the house; look in the cellar, on the first floor, second floor, crawl space, etc. for fixture discharges. Ensure they all lead to the main plumbing discharge to the system. Note on the inspection form that the plumbing was checked. If the inspector is unable to check the plumbing, the reason must be noted in the comments section.

3.1.3 Look for separate systems for the kitchen, second bathroom, etc.

3.1.4 Run water from as many fixtures as possible and listen to the discharge of water into the system being checked.

- 3.1.5 Indicate on the inspection form if all wastewater discharges to one septic system or multiple septic systems. If there are multiple systems, please note in space provided for question #18 or in the comment section of the inspection form.
- 3.1.6 Look for any discharges of storm water to the septic system (e.g. footing drains, sump pumps, roof downspouts, etc.). If discharges of storm water is seen, please note in the comment section of the inspection form.
- 3.1.7 Check in the basement or crawl space for evidence of wastewater having backed up into the building at any time.
- 3.1.8 If needed to clarify the interior plumbing, provide a simple sketch or brief comment on the inspection form.

### **3.2 Wastewater Treatment System**

- 3.2.1 Confirm the septic tank location (as best as possible). Look for depression in ground, vegetation difference (sparse or missing vegetation), smell for odors, etc.
- 3.2.2 Confirm the distribution box location (as best as possible).
- 3.2.3 Confirm the absorption area location (as best as possible). Look for depressions in ground, vegetation differences (lush growth, vivid color), etc.
  - 3.2.3.1 Look for evidence of failures (odors, seepage, discharge from a sand filter, saturated soils, lush vegetation, etc.).
  - 3.2.3.2 Is the area adequately drained? Can runoff enter the system either by surface or subsurface flow? Are there upland areas where rainfall can flow into the absorption area? Can flooding or high water affect the absorption area (i.e. lake shore, low lying areas?)
  - 3.2.3.3 Inspect areas adjacent to the absorption area for evidence of failures or outbreaks, including but not limited to road ditches, wet areas, springs, creeks, ponds. Are areas with excessive or tall vegetation present?
  - 3.2.3.4 Inspect areas for evidence of direct discharge from the system to surface waters, such as a lake, creek, spring, road ditches, etc.
  - 3.2.3.5 Inspect unimproved or undeveloped areas on the property or on adjacent property for evidence of overflow piping (cheater pipes) or direct discharge from the system. Certain conditions may require the inspection of storm drainage pipes or ditches along roadways some distance from the system being inspected.
  - 3.2.3.6 Look for any evidence of shallow bedrock (outcrops, ditches, creek beds, etc.) and any evidence of discharge from the system to bedrock.

- 3.2.3.7 Check for pumps. Check if there is an alarm. Check for any overflows (via piping or on the ground surface). Check if pump appears to operate properly.
- 3.2.3.8 Document any drainage piping on the property including the sizes, lengths, inlet and outlet locations and other data on the inspection form sketch. Inspect this piping prior to dye testing. Confirm any evidence of discharge from the septic system to this drainage piping.
- 3.2.4 Provide comments and a sketch of the site and system on the comment page and sketch sheet provided with the inspection form. Include all pertinent data and information.
  - 3.2.4.1 Locate the septic tank, distribution box, pumps and absorption area with respect to dwellings, buildings, property lines, watercourses, well(s), and other important items on the property and adjacent properties.
  - 3.2.4.2 Locate the presence of any drainage pipes on the sketch.
  - 3.2.4.3 Document separation distances from system components, as indicated in Appendix 75-A of the State Health Law.
  - 3.2.4.4 Note any suspected failure area(s) on the sketch.
  - 3.2.4.5 Note any drainage or topography problems, which may affect the system. Indicate direction of slope on sketch using arrows. Also pls indicate the direction North on the sketch.
- 3.2.5 The inspectors are encouraged to take photographs.

### 3.3 Dye Testing

- 3.3.1 A dye test shall be performed as part of either the Routine or Property Transfer/Refinance inspection procedures.
- 3.3.2 In the event that adjacent systems may been inspected recently, the site should be evaluated for any evidence of dye from these adjacent systems before entering dye into the system that is being inspected.
- 3.3.3 Flow Volume and Rate.
 

The inspector will need to inform the owner concerning the volume of water required and the rate of flow for the dye test. Verify with the system owner that the water supply is adequate for the required flow volume. The rate of flow shall not exceed 5 gals/minute.

  - 3.3.3.1 **Routine Inspection** – For a residence, a volume of 20 gallons per bedroom, up to a **maximum** total of 100 gallons, shall be entered into the system within a 2-hour period for the dye test. If the home is seasonal, the dye test should be performed during periods of maximum occupancy that is typical for that household. If the

residence has a holding tank with a separate gray water system, the flow volume into the gray water system will be only one half of the required amount.

#### 3.3.3.1.1 **Holding tanks for routine inspection**

3.3.3.1.2 Uncover the holding tank and note the level of the tank. Only a minimum flow will be required to assure flow of dye from fixtures to holding tank. Verify flow from the fixtures into the tank. Replace the tank cover. Come back the next day and note the level of the tank and check the property for any evidence of dye from a potential leak or cheater pipes.

3.3.3.1.3 Note the level in the tank prior to and after adding water on page 3 of the inspection form.

#### 3.3.3.2 **Property Transfer / Refinance Inspection**

**Occupied Property** - a residential property that has been occupied and for which the septic system has been used for the past 15 consecutive days. **A residential property used only on weekends/holidays is not considered occupied.**

Flow volume for an occupied residential property shall be 55 gallons per bedroom, or a **minimum of 110 gallons** and shall be entered into the system within a 3 hour period for the dye test. If the residence has a holding tank with a separate gray water system, the flow volume into the gray water system will be only one half of the required amount.

**Unoccupied Property** – a residential property that is not occupied as defined above.

Flow volume for an unoccupied property shall be 110 gallons per bedroom. This volume of water shall be entered into the system within a 6-hour period each day for 3 consecutive days. If the home has a separate gray water system, the flow volume into the gray water system will be only one half of the required amount for 3 consecutive days.

#### 3.3.3.2.1 **Holding tanks for property transfer inspection**

3.3.3.2.2 If the residence is currently inhabited, uncover the holding tank and add a minimum of 110 gallons unless this would cause the tank to overflow or become full to the point where it could not be used for 24 hours, in which case add 20 gallons. Verify flow from the fixtures into the tank. Replace the tank cover. Come back the next day and note the level of the tank and check the

property for any evidence of dye from a potential leak or cheater pipes.

3.3.3.2.3 If the residence is currently uninhabited, uncover the holding tank and add enough water to fill the tank to the top. Verify flow from the fixtures into the tank. Replace the tank cover. Come back the next day to verify that the tank is still full and check the property for any evidence of dye from a potential leak or cheater pipes.

3.3.3.2.4 Note the level in the tank prior to and after adding water on page 3 of the inspection form.

3.3.3.3 Pumping of septic tanks shall not be performed prior to Property Transfer/Refinance Inspection. If the pumping has been completed and the property is occupied, the inspector must wait 30 days from the date of pumping prior to conducting the dye test. (An alternative to waiting 30 days is to ensure the tank is full and perform a 3-day unoccupied dye test. This should only be considered in rare circumstances as an unoccupied test is not as valid as an occupied test.) If the property is unoccupied, the inspector must ensure the tank is refilled prior to the performance of the three-day dye test.

3.3.3.4 Assessments for unoccupied properties will be accepted by the Health Department, but there is no valid test known for an unoccupied home. It is in the best interest of the owner to have the inspection conducted while the property is occupied.

3.3.3.5 The Health Department shall consider assessments valid for a period of 12 months.

3.3.3.6 If the property has separate (dual) systems, split the required flow volume proportionally between the systems.

#### 3.3.3.7 Commercial property

3.3.3.7.1 A commercial property is one in which its sole purpose is to carry out a business. For example, a garage on a residential property that is used as a wood shop is not considered commercial property.

3.3.3.7.2 A commercial property is considered occupied if it is currently being used as a commercial property on a frequency that is typical for the business. A one day inspection can be done on these properties. A three day inspection is required for commercial properties that are not currently being used on a frequency that is typical for the business.

3.3.3.7.3 Inspectors must refer to the State DEC Standards and their own professional judgment for determination of flow volume.

- 3.3.4 Run water from as many fixtures as necessary to confirm discharge to the system as determined by best professional judgment and indicate on the inspection form which fixtures were turned on.
- 3.3.5 Introduce dye into the system through one or more fixtures. If there is doubt concerning connection of a fixture(s) or a separate dwelling to the system, use a separate color dye for these fixtures. Indicate on the inspection form into which fixtures dye was introduced.
- 3.3.6 Use a fluorescent dye. Use a minimum of 1 fluid ounce if liquid powder dye is used. Use a minimum of 0.5 of an ounce if concentrated dry powder dye is used. The inspector should be proficient in using the dye to ensure the fixtures or building are not stained.
- 3.3.7 Document the time of dye introduction, time of flow and flow volume on the inspection form.
- 3.3.8 Inspect the absorption area and any lakes, road ditches, springs, ponds, creeks, drainage piping outlets and unimproved or undeveloped areas on the property, etc. as described in the system inspection procedures to determine any evidence of dye or wastewater.
- 3.3.9 Re-inspect the site if necessary to find any evidence of dye or wastewater. Professional judgment should be used in determining when to re-visit the site. The duration of time will depend on the nature of any suspected failure and the time of year. It may take as much as a week for the dye to appear. Multiple re-visits may be needed if warranted by the weather, the system or the site. If the system has a pump, a re-visit is strongly encouraged unless the inspector is sure that the effluent has reached the leachfield. If system is a holding tank a re-visit is required.
- 3.3.10 Ensure any evidence of dye is not from a recent inspection of an adjacent or neighboring property.
- 3.3.11 Document on the inspection form any evidence of dye or wastewater from the initial inspection or re-visit.
- 3.3.12 Show the system owner any evidence of dye or wastewater.

**3.4 Lake elevation Determination**

- 3.4.1 For those properties bordering the mean high water mark of Owasco Lake, Little Sodus Bay, Cross Lake, Cayuga Lake and Skaneateles Lake, inspectors shall determine the Lake elevation for the date of inspection by checking the WQMA website or calling one of the following telephone numbers:

Owasco Lake	Auburn Filtration Plant	315-253-8754
Little Sodus Bay	Army Corp of Engineers	716-879-4199 716-879-4333

Cross Lake and Cayuga Lake      NYS Thruway      315-438-2300  
(ask for USGS Datum)

Skaneateles Lake      City of Syracuse Water Dept. 315-685-6486

- 3.4.2 The location of the Owasco Lake Mean High Water Mark shall be determined by subtracting the current day elevation from 717.13 and then sighting this height difference in elevation onto the shore or retaining wall from the edge of the lake level for that day.
- 3.4.3 The location of the Little Sodus Bay Mean High Water Mark shall be determined by subtracting the current day elevation from 248.20 and follow the same procedure as stated above.
- 3.4.4 The location of the Cross Lake Mean High Water Mark shall be determined by subtracting the current day elevation from 376.13 and follow the same procedure as stated above.
- 3.4.5 The location of the Cayuga Lake Mean High Water Mark shall be determined by subtracting the current day elevation from 383.05 and follow the same procedure as stated above.
- 3.4.6 The location of the Skaneateles Lake Mean High Water Mark shall be determined by subtracting the current day elevation from 863.27 and follow the same procedure as stated above.
- 3.4.7 All distances from the absorption area to the lake or bay will be referenced to the Mean High Water Mark for the property and **not** the edge of the lake level for that day.

### 3.5 System Failure

- 3.5.1 After completion of the inspection, the inspector must make a determination, using his professional judgment, if the wastewater treatment system is in failure as described under Article 5 Section II, part 14 of the Cayuga County Sanitary Code.
- 3.5.2 If the system is a sand filter with a discharge pipe and there is evidence of any flow from the pipe, the system is in failure.
- 3.5.3 The inspector must report a failure of the system within one (1) business day of the inspection and submit the inspection report within 10 days. A failure is defined as evidence of dye and/or wastewater on the ground surface or in a watercourse.**

### 3.6 System Site Plan Sketch

- 3.6.1 A system site plan sketch shall be prepared on graph paper that is page 4 of the inspection form, drawn to indicated scale with a sharp pointed pencil or pen and straight edge or ruler. The sketch shall show property lines, buildings, other structures, roads, driveways, septic tank(s), distribution box(s), pump basin(s), leaching device(s), drainage pipes, wells, ditches, streams, lake elevation for day of



inspection, Mean High Water Mark and other pertinent physical features. Include all dimensions where possible. Indicate direction of all slopes.

#### 4. INSPECTOR INFORMATION AND VERIFICATION

- 4.1 At the end of the inspection form, the inspector shall provide any additional information necessary for the Environmental Division to evaluate the inspection. This includes general comments, problems found, conflicts in information between the records, the owner, and/or the inspection. Provide the name and signature of the inspector. A disclaimer statement is provided to indicate the inspection provides no warranty of the operation of the wastewater treatment system.
- 4.2 The inspector may utilize an assistant, but the certified inspector must personally conduct the inspection. The inspector cannot simply oversee an inspection conducted by an assistant.
- 4.3 An inspector shall not inspect the wastewater treatment systems serving property that he/she owns or is owned by spouse, parents, siblings or children.
- 4.4 Inspectors who work for interested third parties in regards to property transfers shall not conduct inspections on properties in which they or their employers have an interest in the transaction.
- 4.5 All **inspection reports must be submitted** to the Cayuga County Health Department – Environmental Division **within 30 business days** of the indicated date of inspection, except inspections that document a failure must be submitted within 10 days. An original report must be submitted, not copies of the Inspection Report.
- 4.6 Inspectors shall not claim, verbally or by any action, that a routine or property transfer inspection verifies the construction or repair of a wastewater treatment system.
- 4.7 **Any violation of these requirements herein is subject to enforcement provisions set forth in the New York State Public Health Law and may be grounds for revocation of the inspector's certification.**

#### 5. VARIANCE

- 5.1 A variance request may be submitted to the Variance Committee for any item in the Inspection Protocol in accordance with Section VIII of the Cayuga County Sanitary Code.