CITY of CALABASAS

Onsite Wastewater Treatment System
"OWTS"
Operating Permit Inspection Guidelines

Introduction

The US Census Bureau reported in 2005 that approximately 26 million occupied homes in the United States are serviced by Onsite Wastewater Treatment Systems "OWTS." The United States Environmental Protection Agency and the Los Angeles Regional Water Quality Control Board have both conducted extensive studies and it is well documented that OWTS's frequently fail and are sources of health hazards and environmental damage. Unfortunately, many occupants of dwellings served by OWTS do not understand the importance of maintaining it ("out of sight, out of mind"), therefore, an inordinate amount of failures have been documented nationally, on a state level, and here in the City of Calabasas. The OWTS Operating Permit Program and these inspection guidelines are intended to help educate homeowners about the importance of maintaining OWTS and how to do so while providing a level of protection to the public, the earth and the environment.

The California Plumbing Code as adopted by the City governs the installation and maintenance of OWTS's in the City of Calabasas. History and experience have shown that when properly designed, sited, constructed and maintained, these systems provide an acceptable level of wastewater treatment, and are a valid treatment and disposal option in areas where sewers are not available. However, OWTS dispersal systems naturally degenerate with age. In addition, OWTS's are a below-grade system and are hidden from view. Separately or combined, these realities result in system failures. In a joint effort with the Los Angeles Regional Water Quality Control Board to address this problem, the City of Calabasas requires routine inspections and operating permits.

The routine inspections detailed in these guidelines are intended to avoid disruption to the occupants of the dwelling and are not intended to require unnecessary system replacement. The City's goal is to simply identify the systems presently in the City and to ensure they are functioning properly. Approved OWTS Inspectors shall strive to be customer-service oriented and facilitate issuance of Operating Permits; however, City ordinances and these guidelines are minimum standards and Inspectors must report their findings to the Building and Safety Division, which will exercise its discretion to enforce the City's ordinances and applicable law to protect the public health, safety and general welfare, including the environment and water quality. If conditions exist which show the system is failing or at risk of failure, the system must be repaired, upgraded, replaced or replaced with a connection to a public sewer if available.

These Guidelines are intended to supplement the Uniform Plumbing Code as adopted by the City of Calabasas and shall be interpreted in light of that intent. Should there be any conflict between these Guidelines, the Uniform Plumbing Code as adopted by the City, or other applicable law, the strictest requirement shall apply.

The OWTS Operating Permit Inspection Process:

1. **Applications**
2. **The Inspection**
3. **Inspection Results - System Pass**
4. **Inspection Results - System Conditional Pass**
5. **Inspection Results - System Failure**
6. **Operating Permit Issuance**

1. Applications.

1.1 Inspection of an OWTS shall begin with a records search at the City of Calabasas, the Los Angeles County Department of Health Services, or other appropriate sources to obtain design plans and as-built drawings of the existing system. This information will facilitate locating the system components in the field. City staff and the OWTS inspector shall review an OWTS operating permit application for completeness and accuracy. Included with the application should be a copy of an existing plumbing permit for the OWTS. In addition, a site plan is required that details: the foot print of the property and dwelling, the location and size of the system's septic tank, drop boxes if any, and the dispersal seepage pit or leachfield size and location. In addition the site plan shall be drawn to an approximate scale of 1"= 20' for parcels one acre or less - 1"= 40' for parcels greater than one acre; reference the square footage of the dwelling, the number of bedrooms and bathrooms, and the presence of a garbage disposal and clothes washer if any. The City will confirm the dwelling profile referenced by the application and plans before an inspection is commenced by reviewing building permit records within the Building and Safety permanent files.

1.2 If a permit applicant cannot produce historic records as stated in Section 1.1 above, the Inspector and owner may meet with City staff to determine if the City may be of assistance in gathering the required information. If the City, the Inspector or homeowner cannot locate the historic information, a site evaluation report shall be required prior to operating permit issuance and if determined necessary by the Building Official, a plumbing permit may be required in absence of an existing plumbing permit for the septic system. In order to help the Building Official reach a determination, it is recommended that the applicant provide records of all system maintenance and pumping.

1.3 OWTS permit applications will generally be processed within three business days. If an application is deemed incomplete, the City shall contact the applicant and a course of action as described above shall be commenced. If an application is deemed complete, the applicant will be contacted by the City and a site inspection may be scheduled. The Inspector shall contact the City and provide at least one day's notice of the inspection. The Inspection must be performed during normal City business hours.

2) The Inspection.

The City of Calabasas strives for customer service with a "can do" attitude. The goal of any building inspection is to "strive to say yes - avoid a robotic no." Under no circumstance will an Inspector argue with a homeowner or their representative. The ultimate goal of the inspection is to provide an inspection approval without overzealous scrutiny; it is a reality that most systems in Calabasas may be over twenty years old and common sense must prevail with logical tolerances considered. However, inspections must also comply with the City's ordinances and state laws and a desire to be helpful to a customer is not sufficient to justify certification of a system which requires repair or replacement to comply with the law.

2.1 The City and the Inspector will make every attempt to provide a convenient time for the inspection; however, the home owner, or their representative (appointed via a notarized authorization form) must be present to provide access to the premises.

2.2 The basic inspection techniques to be implemented first include: verifying that the available site plan represents the onsite conditions in regards to the location of the dwelling and the footprint of the property; a walk around the entire site to note the general conditions; a check for obvious signs of system failure, such as sewage odor, effluent ponding, effluent breakout to the surface of the ground, sewage stains on the ground, saturated, spongy soils; vegetation indicative of leaky tanks or clogged dispersal systems and or the presence of inordinate numbers of insects. The Inspector will be required to verify the number of existing bedrooms and the number of existing plumbing fixtures.

2.3 The Inspector shall make a reasonable attempt to locate the septic tank and dispersal system components. Non-invasive techniques for locating system components, such as the use of electronic locators, are preferred. However, it may be necessary to dig and probe to expose system components in order to determine the location and current condition of the system. These methods should only include the use of hand tools such as probes, shovels or electronic detection devices. If a septic compartment or dispersal system inspection involves digging with hand tools, the Inspector shall make reasonable efforts to return the premises to pre-inspection condition. The Inspector shall determine the type of system and components installed. If the system cannot be located, the Inspector shall notify the Building Official and a conditional fail inspection or a re-inspection after the homeowner has hired a licensed individual to expose the system components may be warranted.

2.4 The Inspector shall verify septic tank compartment access and determine whether or not the system requires pumping. The System Inspector shall recommend pumping if it is determined the sludge layer is within twelve inches of the outlet tee, or baffle inlet.

If the system does not require pumping, the Inspector should verify: the septic tank size, approximate age; construction material and structural integrity of the compartment wall ; sludge, liquid and scum levels; the condition of inlet and outlet tees; the condition of the compartment baffle; effluent filters if present, shall be checked for clogging then cleaned; any other mechanical device within the septic tank and any evidence of ground water infiltration. If the tank requires pumping, the Inspector shall note the level of sludge, liquid and scum. If pumping is required but the Inspector deems it appropriate to do so, the Inspector may continue the inspection of the interior components as stated above and if the Inspector determines the risk of sewage overflow can be controlled, perform the remedial hydraulic load test as detailed by these guidelines. If the system has a dosing tank, pump station or any other component not typical of a gravity system, then the Inspector shall thoroughly check the components as detailed below.

2.5 If part of the system, the Inspector shall locate the treatment tank, and/or treatment device (*i.e.,* sand filter, textile filter, etc.), and expose, and remove any manholes, or other access covers, if any, or note the absence of adequate manholes or other access. The treatment tank, and/or treatment device size, approximate age and construction material shall be determined. The treatment tank or treatment device shall be checked for signs of infiltration of groundwater or storm water into the tank or device, or leakage of effluent from the tank or device into surrounding soil.

The Inspector shall check any inlet and outlet plumbing tees and any baffle and shall check for evidence of sewage solids carryover. The effluent filter, if any, shall be checked for clogging. The necessity for pumping shall be determined.

The Inspector shall check any mechanical or electrical components of the system. The Inspector shall note any deficiencies on the report form.

The Inspector shall obtain a copy of the operator's manual from the owner/operator, or from the City of Calabasas, and shall use the manual to test, and determine the proper function of, the system and its components.

2.6 If part of the system, the Inspector shall locate any pump station or dosing tank and expose and remove manhole covers, if any, or note the absence of adequate manholes or access. The approximate age and construction material of the pump station or dosing tank size shall be determined. The pump station or dosing tank shall be checked for signs of infiltration of groundwater or storm water or leakage from the pump station or dosing tank into surrounding soil.

The Inspector shall check any inlet and outlet plumbing tees and any baffle and shall check for evidence of sewage solids carryover. Any effluent filter shall be checked for clogging. The necessity for pumping shall be determined

The System Inspector shall check the pump function. If the pump(s) is not functioning properly, the system may receive a Conditional Pass provided that the pump(s) is repaired or replaced.

2.7 If part of the system, the Inspector shall locate and expose and remove the distribution box cover, determine if the distribution box is level, and if the flow is equal throughout the distribution area, and check for evidence of sewage solids carryover.

The Inspector shall check if the static water level is at or above the outlet laterals. If the water level is above the outlet laterals, and there is no outflow, either the outlet laterals are clogged or the leaching area is surcharged and in failure. The Inspector shall determine the cause of the high static water level.

2.8 If pump stations are part of the system, the location of the pumping component on the site plan and within the system shall be indicated. Available access to the pump component shall also be indicated. The pump(s) must be activated to determine their functionality. All pump station floats must be checked and determined functional. All indications of a pump or float failure or wiring problems shall be noted. The alarm system for the pump component must be checked and the results of that inspection noted on the report form. The pump component of the system will pass inspection when all elements of the pump component are operational and functional.

2.9 It is extremely important that the Inspector locate the existing dispersal system. Approximate location of the dispersal system may be determined by examining the topography and noting drainage arrangement from access at the distribution box. Location of the leaching system can often be accomplished by running a snake down the laterals from the distribution box and then using a metal detector or other locating device.

If the dispersal system is a drainfield, **then excavation of the drainfield, once it is located, is typically NOT required.** It shall be appropriate to expose a portion of the drainfield to determine its condition **IF** the other indications of failure, such as backup of sewage into the facility, effluent ponding, effluent breakout to the surface of the ground, or any other indications that system failure has occurred which cannot be otherwise explained.

When the dispersal system consists of one or more seepage pits, it may be appropriate to expose the seepage pit(s) to determine the effluent level, pit diameter, water depth below the inlet, capping depth of the seepage pit(s), and to determine if there is an outlet connection pipe to another seepage pit, as where seepage pits may be connected in series. This action shall only be performed when it can be clearly demonstrated that this will not cause harm, or the failure to the seepage pit.

If a hydraulic backup is due to a failed dispersal system, the system CANNOT be made to pass by application of physical, chemical, or biological agents, or treatments to the dispersal system. The Inspector must consult the City of Calabasas before any effort is made to repair or upgrade a failed dispersal system.

2.10 When the Building Official requests an inspection report to report setback distances the distances shall be determined in the most effective manner available. Measurements may be rounded to the nearest foot. Where requested elements are not present, an "NA" designation is appropriate.

2.11 Hydraulic Load Testing of a system will be required for most systems. Hydraulic load testing is intended to create an artificial environment which is not indicative of the actual load placed on the system due to occupancy use; however, experience and history have proven that these are the most practical and reliable methods utilized by experts throughout the region. For alternate methods of testing the system and unless the Inspector is basing the lack of Hydraulic Testing on criteria for systems as identified below, an alternate methods and materials request shall be completed by a state-licensed professional and the appropriate fee paid and details for the alternate testing method and the request submitted to the Building Official for review.

The hydraulic load test of existing systems is conducted by surcharging the septic tank with water for 20 minutes; and then observing the rise of water in the septic tank and any observable affects on the dispersal components. Tracer dye may be used to assist in observing dispersal failure. A garden hose discharging into the outlet side of the tank can be used to surcharge the tank. The test shall be initiated by measuring the static effluent level in the septic tank at the outlet side as a reference point. Any rise in the water level at the outlet pipe is measured after water has been added to the tank for 20 minutes. The initial and final water levels must be recorded on the report form. The time required for the tank to return to the initial level must also be recorded. The dispersal area must again be inspected for any indicators of surfacing effluent, wetness, or odor. Such events are conclusive evidence of system failure unless they can be otherwise explained to the satisfaction of the Building Official.

The 20 minute hydraulic load test may be accomplished by a combination or portions of the following: the simultaneous activation of all faucets within the dwelling, lavatory and sinks as well as shower valves; a one-time sequential flushing of each toilet; a clothes washer filled to capacity once and drained; bathtub/s filled to capacity once and drained; or a ¾" garden hose placed without cross connection in the septic tank compartment.

During the hydraulic load testing, the Inspector shall monitor the water level in the septic tank compartment in comparison to the inlet and outlet tees as stated above and also monitor the dispersal system and all other components and devices as stated above.

2.12 If the hydraulic load test is not successful or there is any other condition that results in an Inspector's recommendation to deem an inspection failed, the Inspector shall provide a detailed report as an attachment to the OWTS Inspection Form. If a complete inspection cannot be performed, the Inspector must provided adequate documentation of the conditions that prevented a complete inspection in the "inspection comment" section of the Inspection Form.

These are minimum requirements for an OWTS inspection and shall not constitute a basis for an approval for modifications to a structure served by an OWTS such as remodels, additions or other

work, without the benefit of a building permit and inspection approvals or the replacement of modification to an existing OWTS system pursuant to plumbing permits and inspection approvals.

3. Inspection Results - System Pass

3.1 An Inspector may recommend that a system pass inspection if visual observations of the system components as required by these guidelines verify that the system is in operating condition.

3.2 An inspector may recommend that a system pass inspection if a visual observation of an alternate or advanced system as required by these guidelines verifies that the system is in operating condition and if a maintenance agreement and all service records for the OWTS are available to the Inspector for review.

4. Inspection Results - System Conditional Pass. System Conditional Pass Inspections are subject to re-inspections and the criteria include but are not limited to:

4.1 Septic Tank: Sewage effluent is backing up above the inlet, and/or outlet plumbing tees, or there are signs of previous backup (i.e. toilet paper, or sewage solids above the inlet, and/or outlet plumbing tees, or collected inside the manhole riser, etc.) The system may receive a Conditional Pass, if there are no other failure criteria.

4.2 Treatment Tank/Device: Sewage effluent is backing up above the inlet, and/or outlet plumbing tees, or there are signs of previous backup as a result of mechanical or electrical component failure or operation other than within design specifications, or the system is otherwise not operating within design specifications. The system may receive a Conditional Pass, if there are no other failure criteria.

4.3 Missing historic records or site plan.

4.4 Lack of access to the interior of the dwelling to confirm bedroom and fixture count.

4.5 Systems that have aging dispersal systems and a monitoring plan is prepared by a state-licensed professional and submitted to the Building Official with an alternate methods and materials request application and the appropriate fees may be considered but will be subject to binding agreements recorded with the County of Los Angeles Recorder.

4.6 Systems with unique actual occupancy such as a single occupant, which may justify an Inspector's conclusion that the system will not be overloaded, and an alternate methods and materials request application is submitted to the Building Official which details the actual occupancy and a maintenance plan, may be considered but will be subject to binding agreements recorded with the County of Los Angeles Recorder.

5. Inspection Results - System Failure. System Failure criteria include but are not limited to:

5.1 The system cannot be located.

5.2 Lack of access to a system or its components due to coverage such as a room addition, patio cover, or other similar physical constraint.*

5.3 Deviations from the historic records such as additional bathrooms, bedrooms, or a systems replacement without the benefit of permits and inspection approvals.*

5.4 The system fails a hydraulic load test.*

5.5 Backup into Structure: Sewage effluent is backing up into occupancy structure served by an OWTS if the backup is caused by an overloaded, and/or clogged leaching system. *

5.6 Surface Discharge: Sewage or effluent is ponding on the surface of the ground, or otherwise breaking out to the surface of the ground.*

5.7 The septic tank compartment walls are corroded and or otherwise structurally damaged constituting a potential for collapse or illicit discharge. *

5.8 Septic Tank Backup: Sewage effluent is backing up above the inlet, and/or outlet plumbing tees, or there are signs of previous backup; *i.e.,* toilet paper, or sewage solids above the inlet, and/or outlet plumbing tees, or collected inside the manhole riser, etc.*

5.9 Treatment Tank/Device Backup: Sewage effluent is backing up above the inlet, and/or outlet plumbing tees, or there are signs of previous backup as a result of an overloaded, and/or clogged dispersal system.*

5.10 Distribution Box Backup: Sewage effluent is backing up above the outlet laterals as a result of an overloaded and/or clogged dispersal system.*

5.11 Treatment Tank/Device: Sewage effluent is backing up above the inlet, and/or outlet plumbing tees, or there are signs of previous backup as a result of building drain lateral breakage, clogging, or collapse. Groundwater or storm water is infiltrating into the treatment tank/device, or sewage or effluent is leaking from the treatment tank/device into surrounding soil, or there is a mechanical or electrical component failure, or the mechanical or electrical components are not operating within design specifications.*

5.12 Pump Station/Dosing Tank: Sewage effluent is backing up above the inlet, and/or outlet plumbing tees, or there are signs of previous backup as a result of building drain lateral breakage, clogging, or collapse. Groundwater or storm water is infiltrating into the pump station or dosing tank or effluent is leaking from the pump station or dosing tank into surrounding soil, or there is a mechanical or electrical component failure, or the system is not operating within design specifications.*

5.13 Distribution Box: The distribution box has collapsed or is distributing effluent flow unequally. *

5.11 Building drain lateral: Groundwater or storm water is infiltrating into a building drain lateral, or effluent is leaking from a building drain lateral into the surrounding soil as a result of a pipe break or collapse. *

5.14 Dispersal system: Sewage or effluent is backing up as a result of clogging or collapse of any portion of the dispersal system. *

5.15 Effluent Quality: The system is not capable of treating the effluent to a level acceptable by the City for the type of system and quantity of effluent produced by the system. *

*** Before any attempt is made to repair, upgrade, replace the system, or otherwise attempt to bring the system back into compliance, permit applications and plan check submittal are required.**

6. Operating Permit Issuance

The Inspector shall return a completed OWTS Certification form and return the application package to the Building Official. The Building Official will review the submittal and either issue an operating permit or establish conditions or orders for corrective action as detailed by the California Plumbing Code as adopted by the City of Calabasas.