



NAWT

National Association of **Wastewater** Technicians

THE LIFE CYCLE OF OWTS INSPECTION

KIM SEIPP, NAWT

INTRODUCTIONS

- NAWT –
 - NATIONAL ASSOCIATION OF WASTEWATER TECHNICIANS
- KIM SEIPP
 - HIGH PLAINS SANITATION SERVICE – OWNER
 - NAWT – EDUCATIONAL COORDINATOR
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The material being presented does not reflect the opinions of NOWRA

Introduction – Life Cycle & Principles of OWTS

Beginning of the Life Cycle – Design Principles

Beginning & Early Life – Installation Principles

Mid-Life – Operations & Maintenance Principles

Mid-Life – Inspection

All during the Life – Basic Principles

After Life – Waste Management Principles

Summary – Where we are and where we go from here

Mid-Life – Inspection

NAWT
TRACK
PLAN FOR
TODAY

Introduction to Inspections

Defining the “System” and “Evaluation

Establishing a Protocol and Standard

Being a Professional Inspector

**NAWT – MID-LIFE
INSPECTIONS &
PRINCIPLES**

Introduction to Inspections

Defining the "System" and Situation

Establishing Protocol and Standard

Becoming a Professional Inspector

**NAWT – MID-LIFE
INSPECTIONS &
PRINCIPLES**



WHY BOTHER?

- PROBLEMS
 - INSPECTIONS
- CONCERNS
 - ENVIRONMENT
- VALUE
- **THE START OF MANAGEMENT**

Environmental Protection



Groundwater





PUBLIC HEALTH

- BAD SYSTEMS~
MAKING PEOPLE SICK
- GOOD SYSTEMS
PROTECTING PUBLIC HEALTH

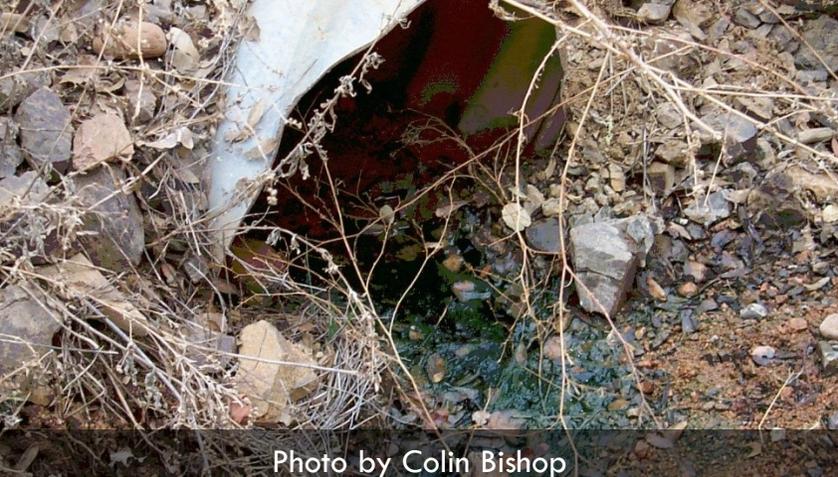
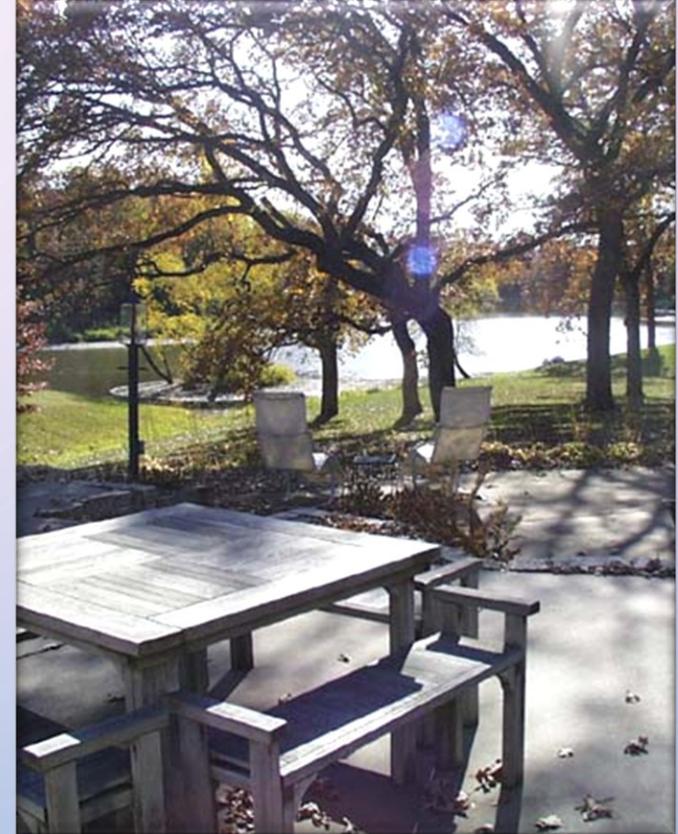


Photo by Colin Bishop

EXPECTATIONS

- BUYER:
- LIFE-TIME WARRANTY
- OWNER:
- GOOD REPORT
 - IT'S "OK"





TYPES OF INSPECTIONS

- DRIVE BY
- SURFACING EFFLUENT
- SYSTEM OPERATION
- UP TO CODE
- SYSTEM LIFE
- WARRANTY
 - YOU ARE THE RME?

INSPECTIONS

- ***SYSTEM OPERATION***
- ***IDENTIFY PROBLEMS***
 - ***COMMENTS***
- ***CONSISTENT***
 - ***DO ALL THE STEPS***

- **ACCEPTABLE**
- **UNACCEPTABLE**





CHECK WITH YOUR STATE

- LOCAL STANDARDS
- NAWT STANDARDS
- LIABILITY
 - HONEST
 - COMPLETE
 - KNOWLEDGEABLE

Introduction to Inspections

Defining the “System” and “Evaluation

Establishing a Protocol and Standard

Defining a Professional Inspector

**NAWT – MID-LIFE
INSPECTIONS &
PRINCIPLES**

WHY DO WE NEED TO UNDERSTAND THE WHOLE SYSTEM

- USE
- COLLECTION
- PRETREATMENT
 - SEPTIC TANK
 - ATU
 - TREATMENT FILTER
- FINAL TREATMENT & DISPERSAL
 - SOIL/SOIL SYSTEM



WHAT ARE DECENTRALIZED WASTEWATER SYSTEMS?

A.K.A. . . .

SEPTIC SYSTEMS **Treatment**

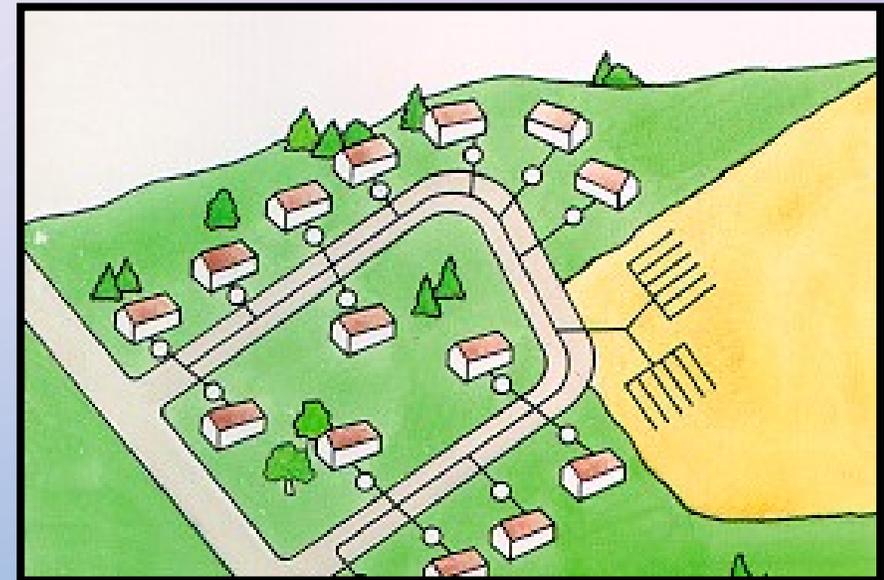
ONSITE SYSTEMS

INDIVIDUAL SYSTEMS

CLUSTER SYSTEMS

PACKAGE PLANTS

CLASS V [EPA TERMINOLOGY]



“GOOD SYSTEMS”

- STANDARD
 - STATE RULES
 - NATIONAL
- PROCESS
 - HOW TO
 - WHAT
- GOAL
 - IN-GROUND
 - TREATMENT

NAWT XI

COLORADO DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENT

Water Quality Control Commission

ON-SITE WASTEWATER TREATMENT SYSTEM REGULATION

REGULATION #43

5 CCR 1002-43

ADOPTED: May 13, 2013

EFFECTIVE: June 30, 2013

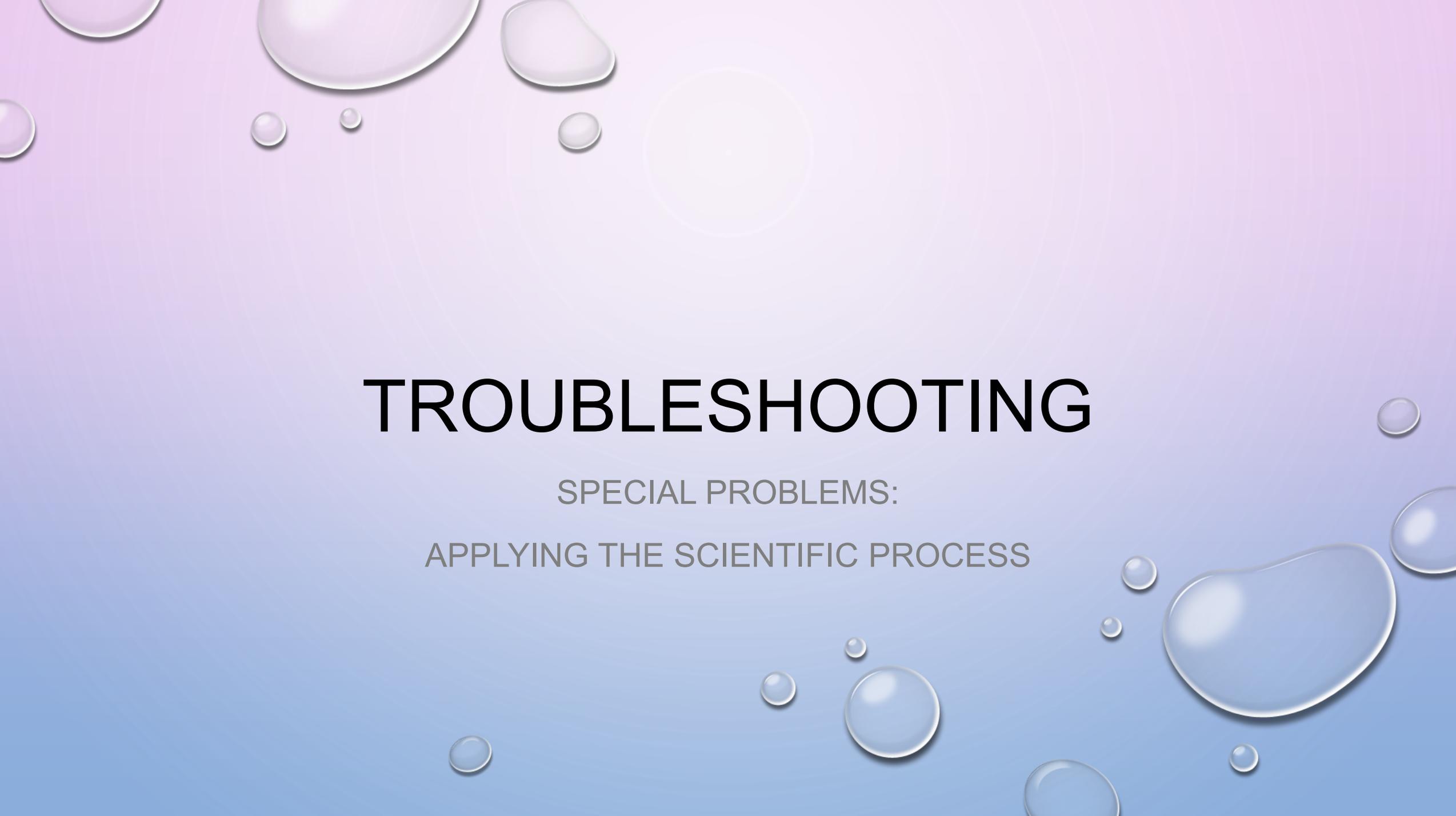
DEI
ENVIRON

Unified W...

Arizona Administrative Code

Title 18, Chapter 9

Article 1, 2 and 3

The background features a light purple-to-blue gradient. In the center, there is a large, faint white circle with a small dot in its center. Scattered across the background are numerous water droplets of various sizes, some with highlights and shadows, giving them a 3D appearance.

TROUBLESHOOTING

SPECIAL PROBLEMS:

APPLYING THE SCIENTIFIC PROCESS

Treatment Capabilities



Taking care of Problems

Introduction to Inspections

Defining the "System"

Establishing a Protocol and Standard

Being a Professional Inspector

**NAWT – MID-LIFE
INSPECTIONS &
PRINCIPLES**

THE PAPERWORK

COMPLETING FORMS





National Association of Wastewater Transporters, Inc.

Page ____: ____

Onsite Wastewater Treatment System Inspection Report

Ordered by Whom: _____ Date: Time Scheduled: __/__/20__ : __: __ am pm
 Send Copy to: _____ Fax to: (____) _____
 Site Address: _____ Billing Address: _____

 Phone: _____ Phone: _____

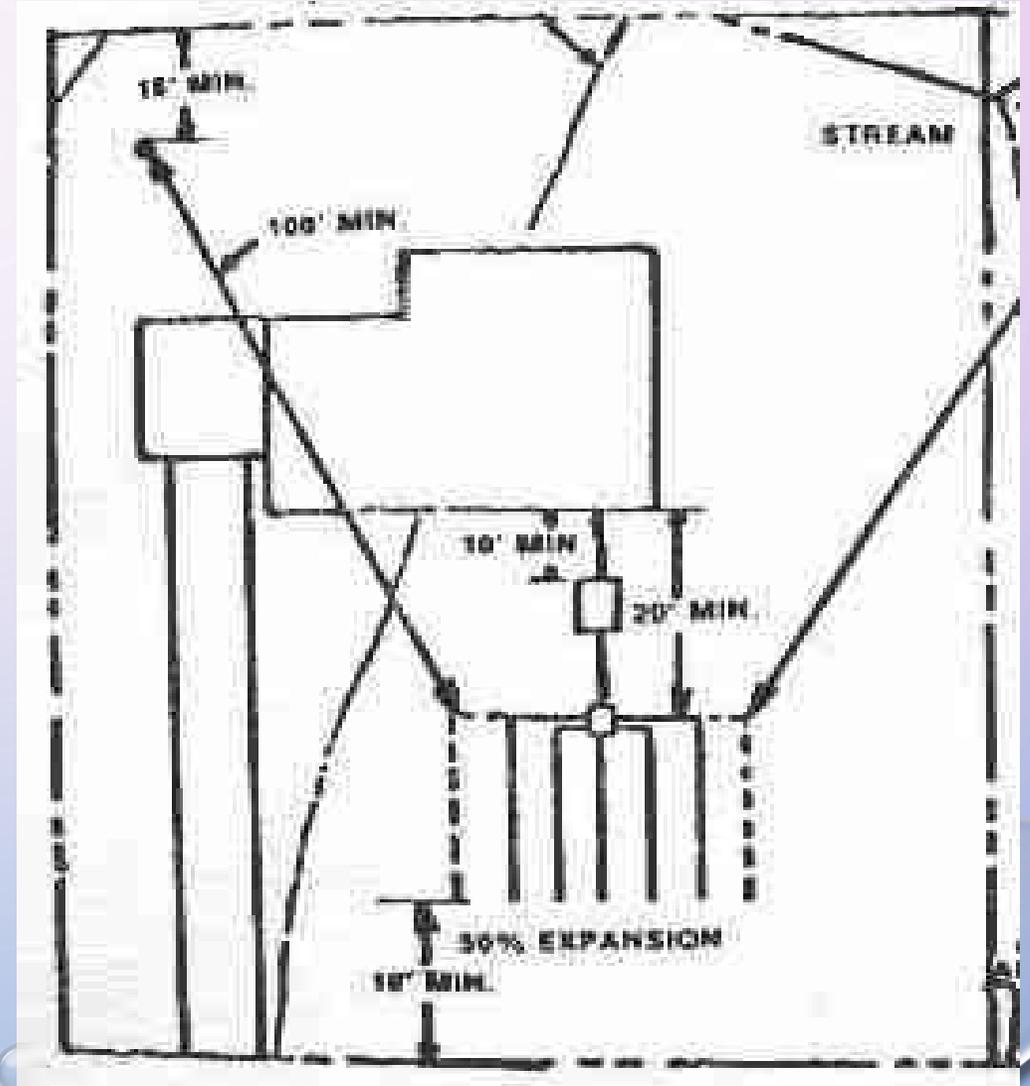
A. General Information: (Obtain as much as possible when inspection ordered)

- 1.) Age of wastewater treatment system: _____ years.
 Was a Homeowner Questionnaire completed? Yes No
 Water softner Garbage disposal Whirlpool bath Cleaning service
 In-home business: type _____ Yes No
 Flow meter: Yes No
- 2.) Number of people occupying dwelling: Currently: _____ Anticipated: _____
 If currently unoccupied, for how long has it been vacant? _____ months
- 3.) Number of bedrooms in dwelling: _____
 Design: _____ Listing: _____
- 4.) Has there ever been a backup in the house? Yes No
- 5.) List any known repairs made to the system: _____
- 6.) Has the system recently been inspected by others? Yes No
 If so, who? _____ did it fail? Yes No
- 7.) Is there a service contract for system components? Yes No
 Company: _____
- 8.) Date the treatment tank last pumped: _____ Never to my knowlegde

COMPLETE THE FORM

- OTHER FORMS TOO
 - STATE/LPA FORMS
 - NOTICE OF INSPECTION
 - NOTICE OF TRANSFER

SKETCH THE SYSTEM CREATING A “RECORD”





**FIND AND SHOW ALL LOCATED
COMPONENTS.**

E. Checklist Summary

- 1.) Pretreatment Unit 1 is in Acceptable Unacceptable condition.
Pretreatment Unit 2 is in Acceptable Unacceptable condition.
Comments:
- 2.) Soil Treatment area is in Acceptable Unacceptable condition.
Comments:
- 3.) Pump and pump tank is in Acceptable Unacceptable condition.
Comments:

CHECKLIST SUMMARY

Introduction to Inspections

Defining the "System" and Evaluation

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Being a Professional Inspector

**NAWT – MID-LIFE
INSPECTIONS &
PRINCIPLES**

BUSINESS

- TIME
- COSTS
- PROFESSIONAL

YOU TRAIN YOUR CUSTOMERS



CLIENT EXPECTATIONS



- *SELLER*
- *BUYER*
- *FINANCE*
- *GOVERNMENT*

COMMUNICATIONS

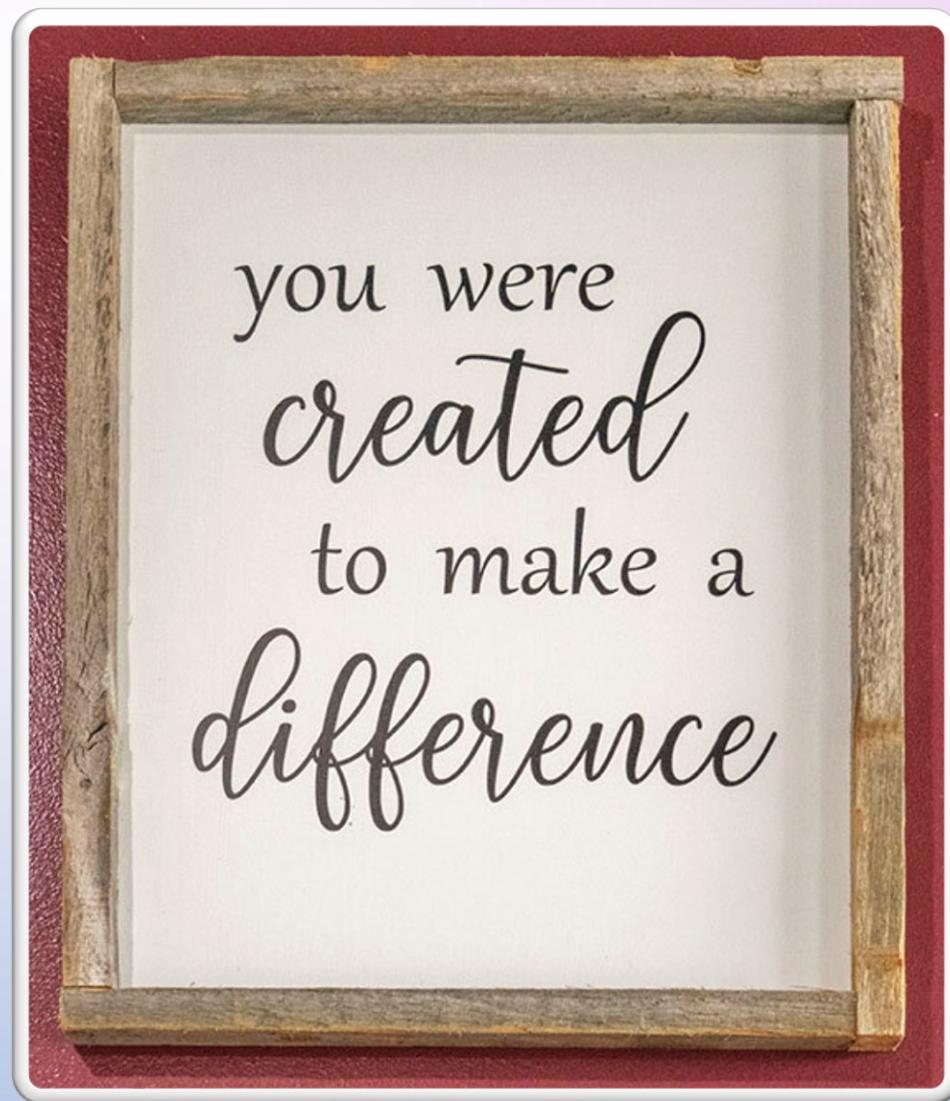
- FRONT END
- MID
- FINAL

**THE INSPECTION STARTS WHEN
THE SYSTEM IS LOCATED**



EDUCATOR VS. PROFESSIONAL

- EDUCATOR
 - SUPPORT AND GUIDE
 - ENCOURAGE
 - SETTING HIGH STANDARDS
- BE A PROFESSIONAL
 - SETTING STANDARDS
 - COMPETENT
 - CHARACTER



Introduction to Inspections

Defining the "System" and Evaluation

Establishing Protocol and Standard

Establishing a Professional Inspector

SUMMARY

**NAWT – MID-LIFE
INSPECTIONS &
PRINCIPLES**