

The image features a light gray background with a subtle gradient. In the top-left and bottom-right corners, there are several realistic water droplets of varying sizes, rendered with soft shadows and highlights to give them a three-dimensional appearance. The text is centered in the middle of the frame.

**OPTIMIZE YOUR ON-LOT SEPTIC SYSTEM**



# Chad Corey

CKS Engineers, Inc.

259 W Swamp Rd

Suite 410


Doylestown, Pennsylvania 18902

215.340.0600

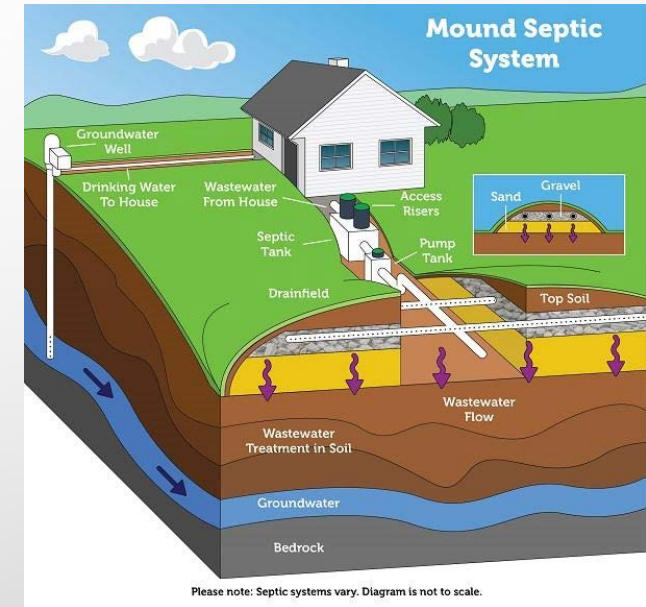
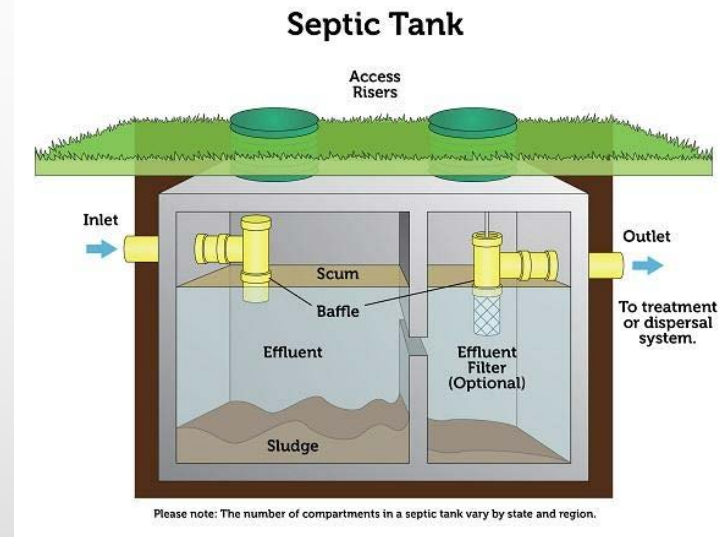
[ccorey@CKSEngineers.com](mailto:ccorey@CKSEngineers.com)



[BOTTOM LINE UP FRONT]

- Aging on-lot septic systems are susceptible to failures.
  - You can reduce the strain on your existing on-lot septic system by reducing the amount of water which flows through it.
- 

# HOW DOES A SEPTIC SYSTEM WORK?





# THREE KEY TYPES OF FAILURES

MECHANICAL

HYDRAULIC

BIOLOGICAL



## MECHANICAL FAILURE:



- CRACKED PIPES, CLOGS, OR DAMAGED COMPONENTS POSSIBLY DUE TO HEAVY SURFACE LOADS (HEAVY VEHICLES) OR TREE ROOT INTRUSIONS OR CLOGS FROM DECAY RESISTANT MATERIALS

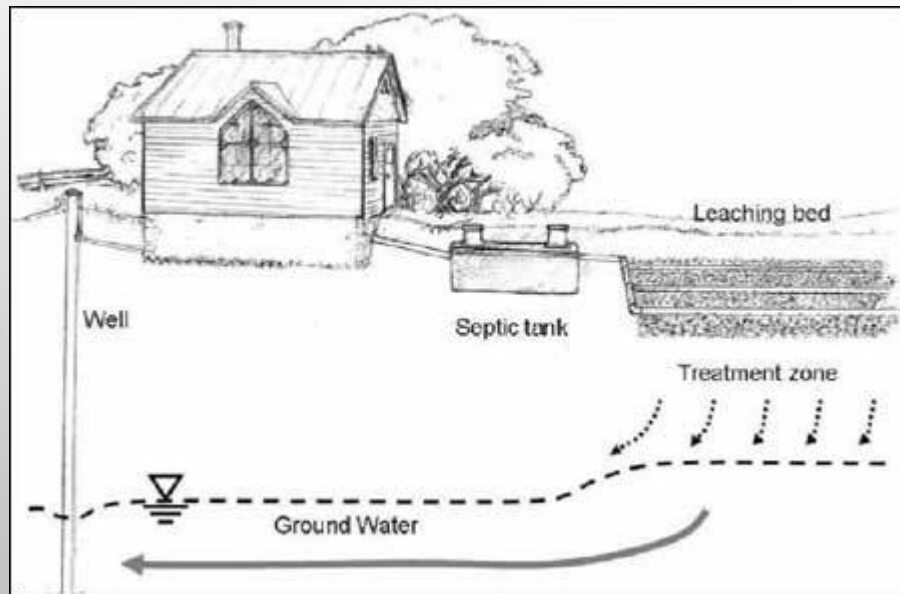


## HYDRAULIC FAILURE:

- TOO MUCH WATER.
- UNDER SIZED / POORLY DESIGNED BASED ON THE SITE AND SOIL CHARACTERISTICS OR SEASONAL CHANGES TO THE GROUNDWATER TABLE. POSSIBLY THERE WERE CHANGES TO TYPICAL USE (E.G. MORE PEOPLE LIVING AT THE HOME USE MORE WATER) OR JUST INCREASED VOLUME OF FLOW FROM LEAKING FIXTURES



# BIOLOGICAL FAILURE



- TOO MUCH ORGANIC MATTER.
- COULD BE TOO DUE TO KITCHEN WASTE (GARBAGE DISPOSAL) OR COOKING OILS/ FATS/ GREASE POURED DOWN THE DRAIN
- OR BACTERIAL ACTIVITY COULD BE IMPEDED BY HARMFUL CHEMICALS OR DETERGENTS
- THESE ORGANICS CAN CLOG DRAIN FIELDS OR CAUSE CONTAMINANTS TO LEACH INTO GROUNDWATER

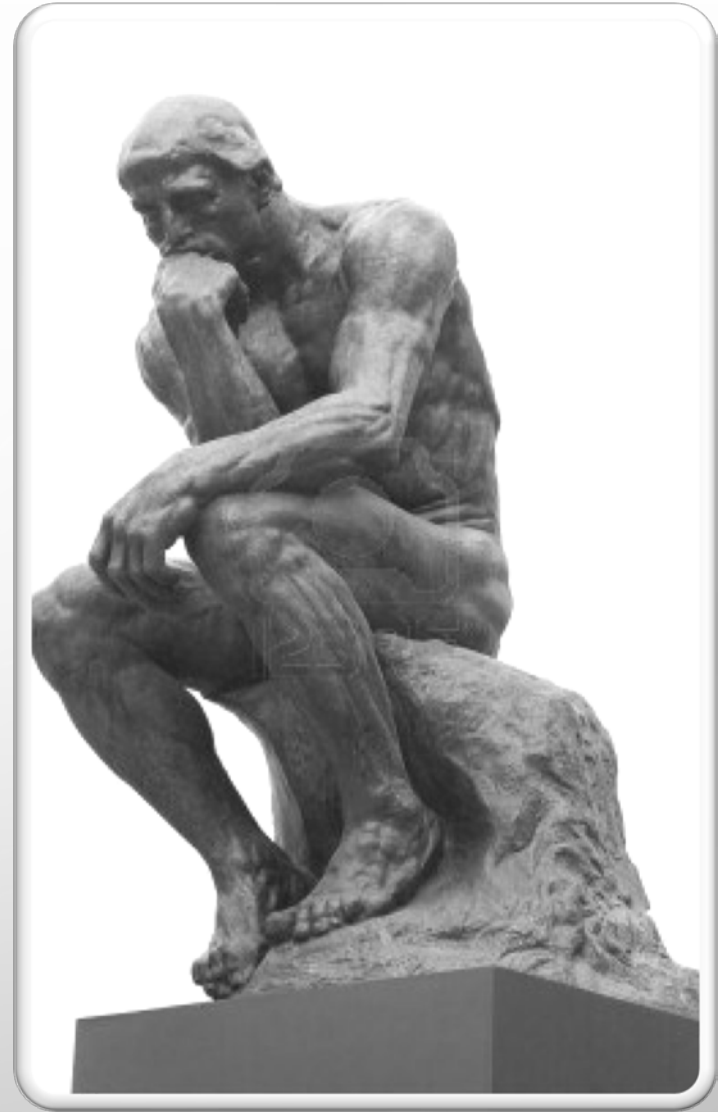


# FAILURES LEAD TO COSTLY REPAIRS



BY OPTIMIZING THE OPERATION OF  
YOUR SEPTIC SYSTEM YOU WILL  
SAFEGUARD AGAINST THESE THREE  
COMMON TYPES OF FAILURE.

HOW DO I OPTIMIZE MY SEPTIC SYSTEM?



# REGULAR MAINTENANCE

- FIRST AND FOREMOST, MAINTAINING YOUR SEPTIC SYSTEM SHOULD BE HIGH PRIORITY. (UPPER MAKEFIELD TOWNSHIP HAS BEEN ADVOCATING THIS FOR SEVERAL YEARS)
- BY KEEPING UP WITH REGULAR PUMP-OUTS AND DILIGENTLY INSPECTING THE COMPONENTS OF YOUR SYSTEM YOU WILL BE ABLE TO CATCH ISSUES WITH YOUR ON-LOT SEPTIC SYSTEM BEFORE A POTENTIALLY COSTLY REPAIR OR REPLACEMENT IS NEEDED.
- AVOID DRIVING HEAVY VEHICLES OVER DRAINAGE AREAS – THIS CAN DAMAGE PIPES AND CAUSE FAILURES OR INEFFECTIVITIES
- BE CONSCIOUS OF TREES AND SHRUBS NEAR DRAIN FIELD PIPES TO PREVENT ROOT INTRUSIONS AND CLOGS

# REDUCE WATER USE

REDUCING THE VOLUME OF WATER INTO THE SYSTEM, OR STRATEGICALLY TIMING PERIODS OF HIGH FLOW TO YOUR SEPTIC TANK WILL INCREASE THE EFFICIENCY OF YOUR SEPTIC TANK AND DRAIN FIELD.

2 - 5 GALLONS PER MINUTE



20 - 30 GALLONS PER LOAD




UP TO 5 GALLONS PER FLUSH





# REDUCE OVERALL WATER VOLUME TO YOUR SEPTIC SYSTEM

- FIX ALL LEAKING FIXTURES NOW. IT IS CRITICAL TO FIND AND REPAIR ANY LEAKING FIXTURES IN YOUR HOME. THOSE SLOW DRIPPING LEAKS CAN CONTRIBUTE A SUBSTANTIAL VOLUME OF WATER TO YOUR SEPTIC SYSTEM.
  - A DRIPPING/LEAKING FAUCET CAN WASTE 10 GALLONS PER DAY
  - A LEAKING/RUNNING TOILET CAN WASTE 100'S OF GALLONS PER DAY
  - LOW FLOW FIXTURES, AND MORE WATER EFFICIENT APPLIANCES AND TOILETS ARE HELPFUL, BUT NOT NEEDED
  - SUMP PUMPS AND DEHUMIDIFIERS SHOULD NOT DISCHARGE TO YOUR SEPTIC SYSTEM, CHECK THAT BASEMENT SINK...
- 



# AVOID THE FLOOD: SPACE OUT HIGH FLOWS TO ALLOW YOUR SYSTEM TO PROCESS AND PROPERLY TREAT/ AND DRAIN



- BE AWARE OF THE TIMING OF HIGH VOLUME FLOWS TO YOUR SEPTIC TANK TO ALLOW YOUR DRAIN FIELD KEEP UP.
- CONSIDER SPREADING OUT MULTIPLE LOADS OF LAUNDRY OVER MULTIPLE DAYS,
- REDUCING THE DURATION OF SHOWERS,
- AVOID RUNNING THE DISHWASHER WHILE DOING LAUNDRY OR WHILE SOMEONE IS SHOWERING.

# WATER SMART

- IF YOU WATER YOUR LAWN, DO NOT WATER AROUND THE SEPTIC DRAIN FIELD
- IRRIGATION WATER DOES NOT FLOW INTO YOUR SEPTIC TANK, BUT BY SATURATING THE GROUND AROUND YOUR DRAIN FIELD YOU ARE REDUCING THE SOILS CAPACITY TO ABSORB WATER FROM YOUR SEPTIC SYSTEM
- AVOID HIGH WATER USE SUCH AS LAUNDRY AND DISHWASHING IF THE GROUND IS SATURATED (SEE ABOVE ON FLOW TIMING) IF POSSIBLE.



# REDUCE WASTE MATERIAL

- GARBAGE DISPOSALS ARE A NO-NO.
- EVERYTHING SOLID THAT ENTERS YOUR SEPTIC SYSTEM MUST BE BROKEN DOWN, OR PUMPED OUT. ONLY LIQUIDS WILL DRAIN.
- UTILIZE YOUR IN-SINK STRAINER TO REMOVE KITCHEN ORGANICS FOR COMPOST OR DISPOSAL IN THE TRASH
- REDUCE THE AMOUNTS OF FATS, OILS, AND GREASE YOU POUR DOWN THE DRAIN
- COLLECT COOKING GREASES AND OILS AND DISCARD IN THE TRASH OR COMPOST
- THESE FATS CAN SOLIDIFY AND CLOG PIPES, THEY ARE ALSO PROVIDING AN ALTERNATIVE FOOD SOURCE FOR THE BACTERIA IN YOUR SEPTIC SYSTEM TO EAT.. WHICH MEANS THEY WILL NOT BE METABOLIZING YOUR OTHER WASTE MATERIALS.

# KNOW WHAT NOT TO FLUSH



- ANYTHING NOT BIODEGRADABLE WILL NOT BREAK DOWN IN YOUR SEPTIC SYSTEM AND SHOULD NOT BE FLUSHED. THIS INCLUDES ITEMS SUCH AS THICK PAPER NAPKINS, PAPER TOWELS, PLASTIC BAGS, COTTON BALLS, COTTON SWABS, TAMPONS, DIAPERS, CIGARETTE BUTTS, ETC.
- THESE ITEMS CAN CLOG LINES AND INCREASE THE FREQUENCY YOU NEED TO HAVE THE SEPTIC SYSTEM PUMPED OUT.



# REEVALUATE WHAT CLEANING PRODUCTS / DETERGENTS YOU USE

LOOK FOR PRODUCTS WHICH ARE BIODEGRADABLE WITH LOW PHOSPHATES

TRADITIONAL DETERGENTS OR CONCENTRATED CLEANERS (INCLUDING LAUNDRY DETERGENT, DISH SOAP, HOUSEHOLD CLEANING PRODUCTS, SHAMPOOS AND BODY WASHES CAN INHIBIT THE BACTERIA IN YOUR SEPTIC SYSTEM FROM BREAKING DOWN ORGANIC WASTE.

CONSIDER OTHER PRODUCTS TO ADD BENEFICIAL BACTERIA TO YOUR SEPTIC





# CLOSING REMARKS..

Questions?



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Suite 410

Doylestown, Pennsylvania 18902

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[ccorey@CKSEngineers.com](mailto:ccorey@CKSEngineers.com)