



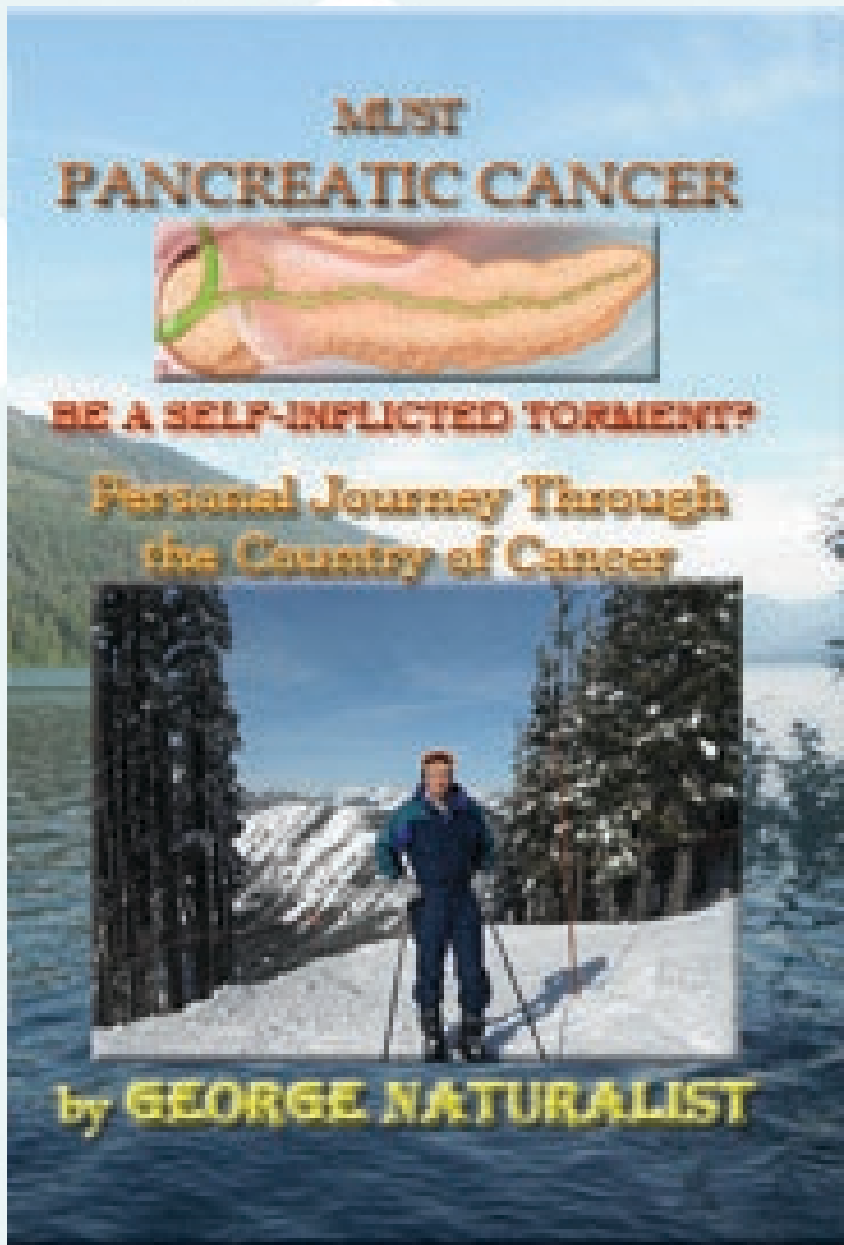
# The major ideas of the Petition for OSS rule revision

# The author

Yury Danilov – George (christian name)

- EDU: 1. Master in Electrical Engineering - 1971
  - 2. Master in Physics -1978, Physics Dep. of Moscow State University
- Experience: Electronics, Physics of EMF, Ultrasonic testing, Crystallography, Biophysics.
- Scientific interests:
  - 1. properties of water,
  - 2. mitogenetic radiation.





# Other interest include Microbiology

In many instances  
cancer is caused by  
pathogenic fungi.

This book describes  
one of these cases.

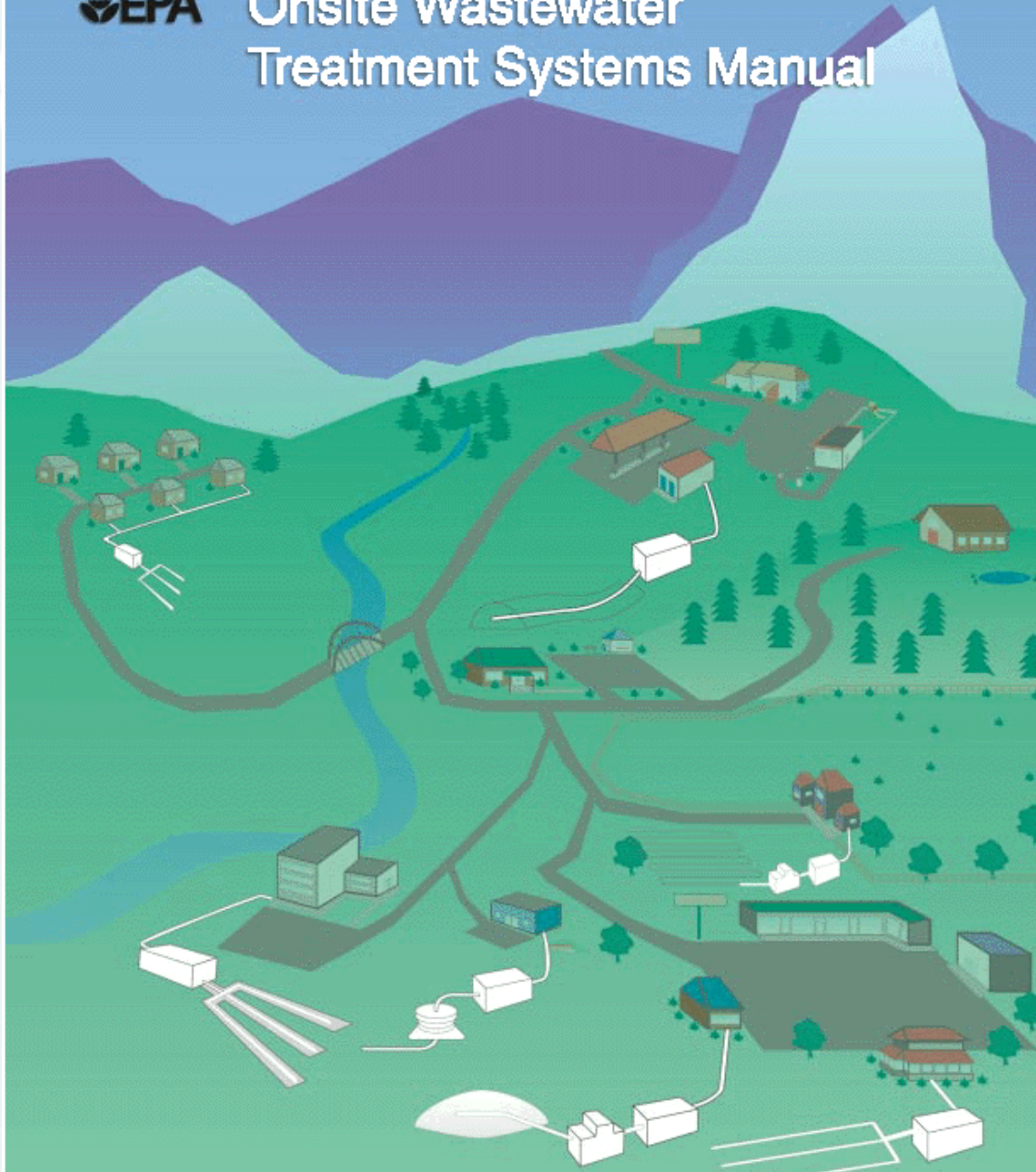
[www.naturelaws.org/book/](http://www.naturelaws.org/book/)



United States  
Environmental Protection  
Agency



## Onsite Wastewater Treatment Systems Manual



This manual describes best practices and technologies of wastewater treatment, which are regrettably ignored in WA on unclear reasons





# Manual vs. 272A

- 1. Separation of blackwater, graywater and organic garbage; 272A ignores it.
- 2. Performance based approach instead of prescriptive in 272A;
- 3. Manual recommends ATU (table 3-19) vs. 272A marginalizes it;
- 4. Cooperation with the owner (**1.5.1**), education in the form of a comprehensive WW treatment manual; no such approach in WA.
- 5. Registration and Maintenance inspection cannot be performed efficiently without a team of inspectors;
- 6. Manual recommends Evapotranspiration, 272A completely ignores it. Besides, plants and grasses also consume nitrogen and phosphorus.



# Performance based approach

EPA Manual, page 32

1.6. **Performance-based management** approaches have been proposed as a substitute for prescriptive requirements for system design, siting, and operation.

1.6.1 Onsite system management has traditionally been based on prescriptive requirements for system design, siting, and installation. Installation of a system that "complies" with codes is a primary goal. Most jurisdictions specify the type of system that must be installed and the types and depth of soils that must be present. They also require mandatory setbacks from seasonally high water tables, property lines, wells, surface waters, and other landscape features. Some of these requirements (e.g., minimum setback distances from streams and reservoirs) are arbitrary and vary widely among the states (Curry, 1998).



# Advantage of ATUs (table 3-19)

- 1. Ten times more efficient performance in terms of BOD , and, hence, compact size.
- 2. Twice less nitrogen and phosphorus.
- 3. Thousand time less bacteria such as Salmonella, E. coli, Shigella ...
- 4. Does not generate methane and hydrogen sulfide.
- 272A marginalizes it as proprietary and certified designers impede installation.



# Manual gives statistics of water usage

Fixture/use	Gal/use: Average range	Uses/person/day: Average range	Gal/person/day: Average range <sup>c</sup>	% Total: Average range
Toilet	3.5 2.9-3.9	5.05 4.5-5.6	18.5 15.7-22.9	26.7 22.6- 30.6
Shower	17.2 <sup>d</sup> 14.9-18.6	0.75 <sup>d</sup> 0.6-0.9	11.6 8.3-15.1	16.8 11.8- 20.2
Bath	See shower	See shower	1.2 0.5-1.9	1.7 0.9-2.7
Clothes washer	40.5 —	0.37 0.30-0.42	15.0 12.0-17.1	21.7 17.8- 28.0
Dishwasher	10.0 9.3-10.6	0.10 0.06-0.13	1.0 0.6-1.4	1.4 0.9-2.2
Faucets	1.4 <sup>e</sup> —	8.1 <sup>f</sup> 6.7-9.4	10.9 8.7-12.3	15.7 12.4- 18.5



# Separation of black water from gray and organic garbage gives dramatic advantage in cost and efficacy

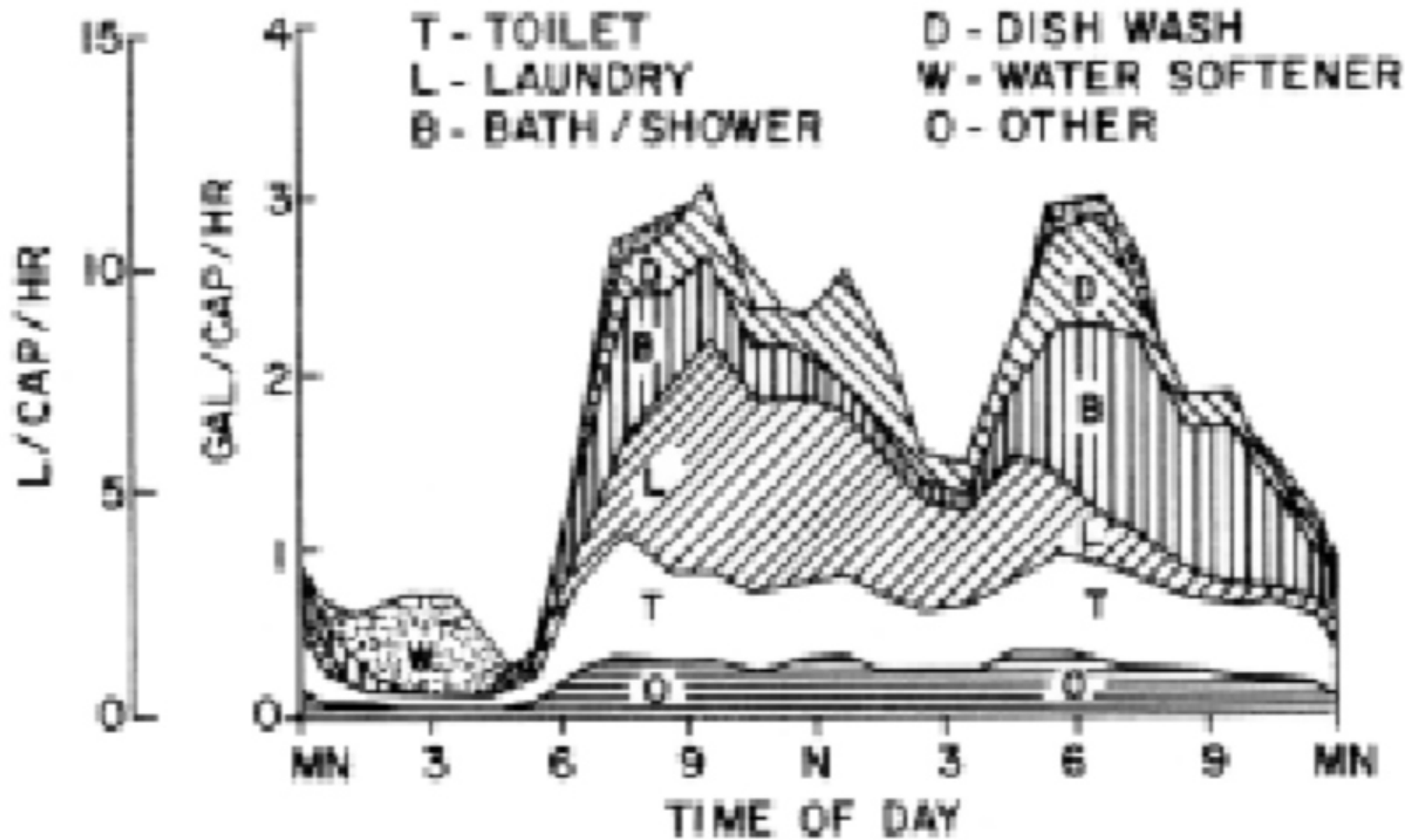
- As it is seen from previous table a person needs only 18.5 gallons of toilet water a day. If separation is used – the sewage tank becomes much smaller.
- Gray water can be recycled.
- Organic garbage can be composted in an aerated container with much higher efficacy.





Manual gives statistics of wastewater during the day.

Figure 3-3. Daily indoor water use pattern for single-family residence



# No pressure-time dosing is needed for effluent

- As it is seen from the previous table, toilet water is used very smoothly during the day and gravity dispersal can be used for effluent.
- This remarkably simplifies the system, make it inexpensive and reliable, and hence, such systems serve much longer time and need less attention.



# Other mistakes in 272A

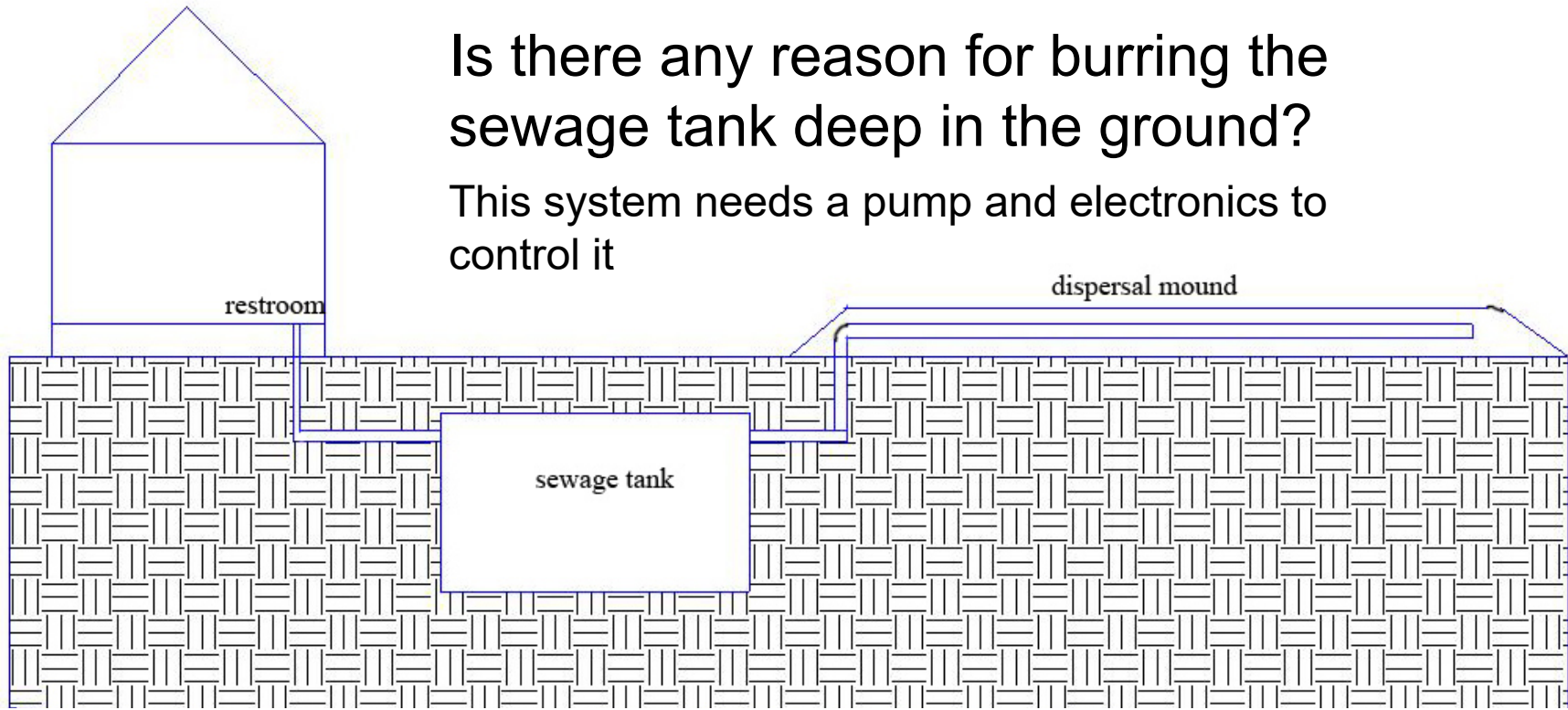
## Absence of:

- 1. Eliminating organic garbage in OSS;**
- 2. Evapotranspiration;**
- 3. Properties of sawdust and woodchips to bind nitrogen and aerate soil are ignored. And obsolete (1870) gravel filtration is used instead.**

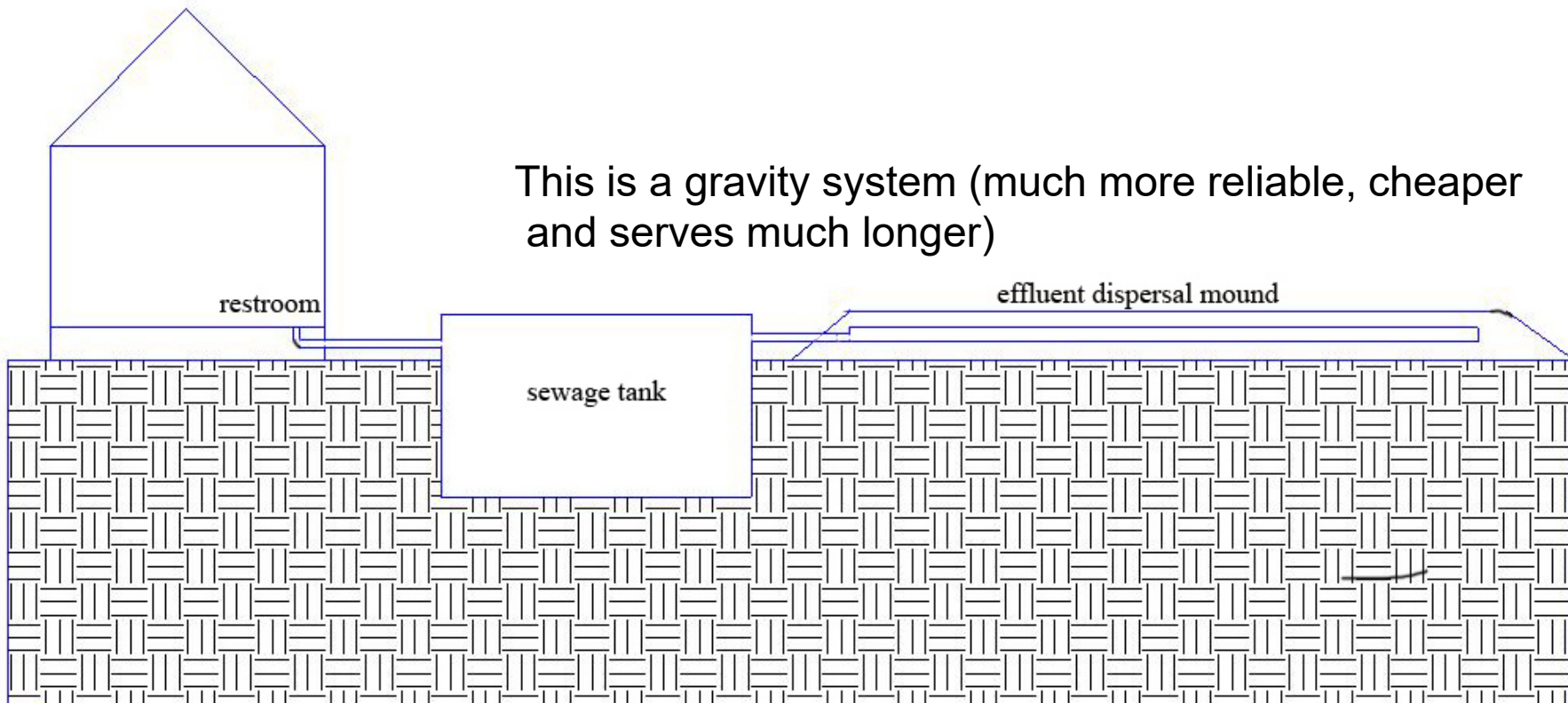


Is there any reason for burring the sewage tank deep in the ground?

This system needs a pump and electronics to control it



This is a gravity system (much more reliable, cheaper and serves much longer)



# Administrative monopoly

Paragraph WAC 246-272A-0230 (1) On-site sewage systems may only be designed by an engineer licensed under chapter 18.43 RCW or on-site sewage treatment system designers, licensed under chapter 18.210 RCW, **except:**

**(a) If at the discretion of the local health officer, a resident owner of a single-family residence not adjacent to within two hundred feet of a marine shoreline is allowed to design a system for that residence.**

Local health officer gets unlimited power to dictate who shall do the work. Such approach creates very good ground for abuses and corruption.

And the question arises:

How this paragraph can satisfy

Articles 17, 25 and 29 of

Universal Declaration of Human Rights?





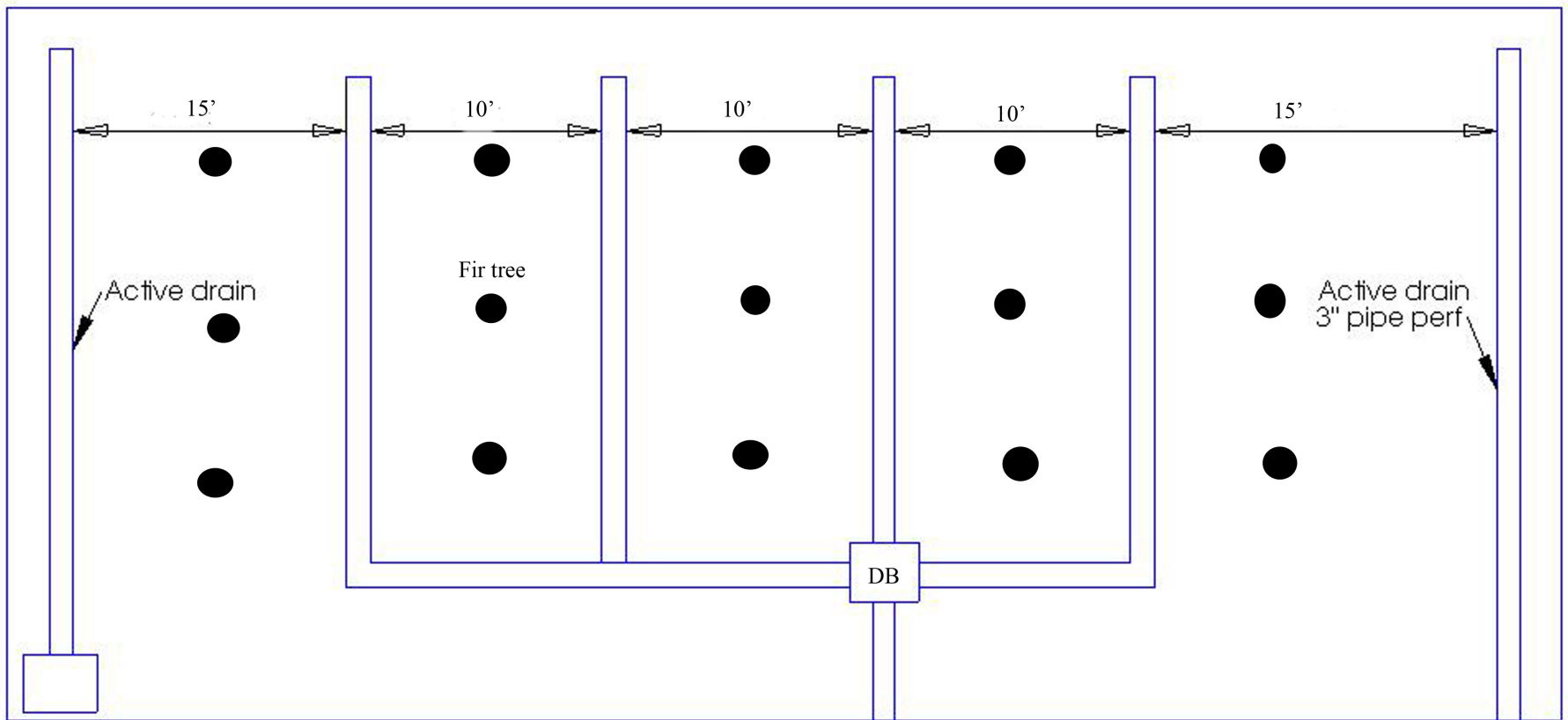
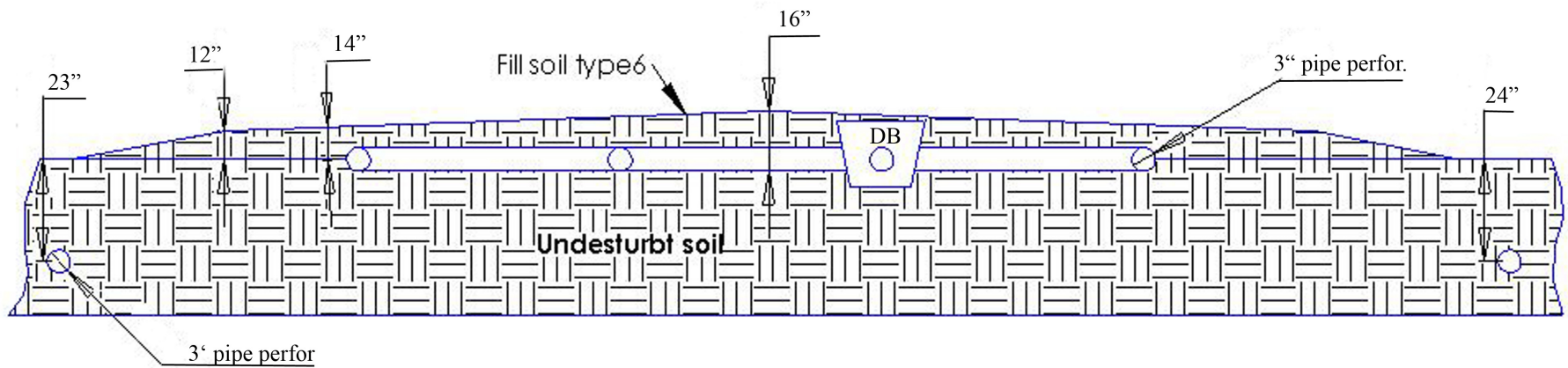
# Results



This Mound system was permitted and installed on the property, which may be flooded from time to time and water stand on the surface for the entire winter.

Does it comply with the requirements of the Chapter 246-272A?





This drain-field uses evapotranspiration and reduces danger of excessive nitrogen and phosphorus, since plants and grass use all these ingredients for grows.

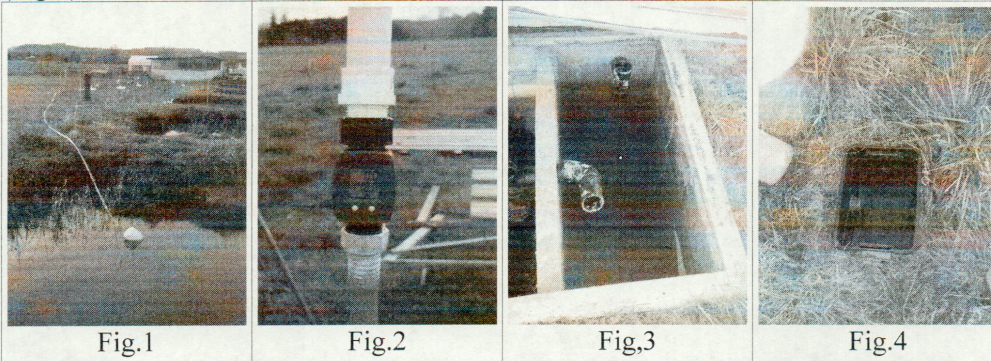


Report of Onsite Sewage System test  
at 3293 King road, Chehalis, WA 98532

The major purpose of this test is to verify absorption properties of the drain field of the OSS described in the attachment 1.

The procedure is as follows.

Water from the pond (fig.1) in the farm was pumped through the chain of 3/4" pipes and a water meter (Fig.2) into the inlet of sedimentation compartment of the sewage tank (Fig.3) and went through the outlet into the Distribution box (Fig.4).



From the distribution box water passes into four 3" perforated drain pipes of the drain field. The results of the measurements were as follows:

Date	5/3/2021	5/4/2021	5/5/2021
Absorption volume	480	490	480
Time	1h:35m	1h:37m	1h:35m

The volume of the pumped water was defined by the WAC 246-272A requirements only. The Distribution box was always empty since the drain field absorbed all the water and did not show any signs of overflow.

Owner:

Danilov  
Name

*Danilov*  
Signature

360-515-7719  
Telephone

Date 5/5/21

The witnesses of the test

Matthew Parker  
Name

*Matthew Parker*  
Signature

360-520-4477  
Telephone

Date 5/5/21

Susan Remund  
Name

*Susan Remund*  
Signature

360-304-9545  
Telephone

Date 5/5/21

This is a procedure and the results of the drainfield performance test.

The drainfield can absorb effluent in a quantity sufficient for 4 bedroom house.

It also has way better filtration properties than widely adopted "Mound system" and works very well on the properties with type 6 soils





INFRACTION

PARKING  TRAFFIC  NON-TRAFFIC LEA: WA0210000 COURT ORI #: WA021013J INFRACTION #: 1A0148219 REPORT #: 21C261

IN THE  DISTRICT  MUNICIPAL COURT OF LEWIS COUNTY DISTRICT COURT  
 STATE OF WASHINGTON  COUNTY OF LEWIS  CITY/TOWN OF \_\_\_\_\_, PLAINTIFF VS. NAMED DEFENDANT

THE UNDERSIGNED CERTIFIES AND SAYS THAT IN THE STATE OF WASHINGTON

DRIVER'S LICENSE NO. \_\_\_\_\_ STATE \_\_\_\_\_ EXPIRES \_\_\_\_\_ PHOTO I.D. MATCHED  YES  NO NAME: LAST DANILOV FIRST YURY MIDDLE \_\_\_\_\_ SFX \_\_\_\_\_ CDL/CLP  YES  NO  
 ADDRESS PO BOX 125 IF NEW ADDRESS  PASSENGER CITY CURTIS STATE WA ZIP CODE 98538

EMPLOYER \_\_\_\_\_ EMPLOYER LOCATION \_\_\_\_\_  
 DATE OF BIRTH 05-03-46 RACE W SEX M HEIGHT 6'02" WEIGHT 160 EYES BLU HAIR XXX RESIDENTIAL PHONE NO. \_\_\_\_\_ CELL/PAGER PHONE NO. \_\_\_\_\_ WORK PHONE NO. \_\_\_\_\_  
 VIOLATION DATE 01/05/2021 09:46 ON OR ABOUT \_\_\_\_\_ INTERPRETER NEEDED  AT LOCATION KING RD M.P. BLOCK # 3293 CITY/COUNTY OF CHEHALIS/LEWIS

DID OPERATE/PARK THE FOLLOWING VEHICLE ON A PUBLIC HIGHWAY/PROPERTY AND

VEH LIC NO \_\_\_\_\_ STATE \_\_\_\_\_ EXPIRES \_\_\_\_\_ VEH YR \_\_\_\_\_ MAKE \_\_\_\_\_ MODEL \_\_\_\_\_ STYLE \_\_\_\_\_ COLOR \_\_\_\_\_  
 TR #1 LIC NO \_\_\_\_\_ STATE \_\_\_\_\_ EXPIRES \_\_\_\_\_ TR YR \_\_\_\_\_ TR #2 LIC NO \_\_\_\_\_ STATE \_\_\_\_\_ EXPIRES \_\_\_\_\_ TR YR \_\_\_\_\_

OWNER/COMPANY IF OTHER THAN DRIVER \_\_\_\_\_ ADDRESS \_\_\_\_\_ CITY \_\_\_\_\_ STATE \_\_\_\_\_ ZIP CODE \_\_\_\_\_  
 ACCIDENT \_\_\_\_\_ COMMERCIAL VEHICLE  YES  NO 16+ PASS  YES  NO HAZMAT  YES  NO EXEMPT VEHICLE  YES  NO FIRE LEA  YES  NO

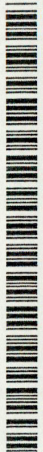
DID THEN AND THERE COMMIT EACH OF THE FOLLOWING OFFENSES

VEH SPEED	IN A	ZONE	SMD	PACE	AIRCRAFT	PENALTY
1. VIOLATION/STATUTE CODE	L15.25.080.2				MOBILE HOME OCCUPANCY RESTR	PENALTY \$ 257.00
2. VIOLATION/STATUTE CODE	L8.40.020.1				SEWAGE SYSTEM VIOLATION	PENALTY \$ 257.00
3. VIOLATION/STATUTE CODE						PENALTY \$
4. VIOLATION/STATUTE CODE						PENALTY \$
5. VIOLATION/STATUTE CODE						PENALTY \$
						TOTAL PENALTY \$ 514.00

RELATED # \_\_\_\_\_ DATE ISSUED 01-06-21  
 TICKET SERVED ON VIOLATOR  
 TICKET SENT TO COURT FOR MAILING  
 TICKET REFERRED TO PROSECUTOR  
 I CERTIFY UNDER PENALTY OF PERJURY UNDER THE LAWS OF THE STATE OF WASHINGTON THAT I HAVE ISSUED THIS ON THE DATE AND AT THE LOCATION ABOVE, AND I HAVE PROBABLE CAUSE TO BELIEVE THE ABOVE DESCRIBED PERSON/VEHICLE COMMITTED THE ABOVE OFFENSE(S), AND I AM ENTERING MY AUTHORIZED USER ID AND PASSWORD TO AUTHENTICATE IT.  
 OFFICER WILLIAM TEITZEL # X55  
 OFFICER \_\_\_\_\_ # \_\_\_\_\_

INFRACTION ABSTRACT OF JUDGMENT	INF #	RESPONSE	DISPOSITION	PENALTY	SUSPENDED	SUB-TOTAL	FINDING/JUDGMENT DATE
	1	C NC	C NC D P DF	\$	S	\$	ABSTRACT MLD TO OLYMPIA
	2	C NC	C NC D P DF	\$	S	\$	
	3	C NC	C NC D P DF	\$	S	\$	
	4	C NC	C NC D P DF	\$	S	\$	TOTAL COSTS
5	C NC	C NC D P DF	\$	S	\$	\$	

INFRACTION # 1A0148219 LCS IN



DANILOV, YURY 050346



- That's what Lewis County did in response instead of admitting that the system has very good properties.
- How do such actions of the local health officers comply with the major goal of 272A, which is:
- prevent pollution of the environment?





nt Cult Farm fin gds Hlth info Scien SWG Technol EDU

4	—	New Zealand	Full democracy	10.00	8.93	8.89	8.75	9.71	9.25	▼ 0.01
5	▲ 2	Canada	Full democracy	9.58	8.93	8.89	9.38	9.41	9.24	▲ 0.02
6	▼ 1	Finland	Full democracy	10.00	8.93	8.89	8.75	9.41	9.20	▼ 0.05
7	—	Denmark	Full democracy	10.00	8.93	8.33	9.38	9.12	9.15	▼ 0.07
8	▼ 2	Ireland	Full democracy	10.00	7.86	8.33	9.38	9.71	9.05	▼ 0.19
9	—	Australia	Full democracy	10.00	8.57	7.78	8.75	9.71	8.96	▼ 0.13
9	▲ 2	Netherlands	Full democracy	9.58	9.29	8.33	8.75	8.82	8.96	▼ 0.05
11	▲ 20	Taiwan	Full democracy	10.00	9.64	7.22	8.13	9.71	8.94	▲ 1.21
12	▼ 2	Switzerland	Full democracy	9.58	8.57	7.78	9.38	8.82	8.83	▼ 0.20
13	▼ 1	Luxembourg	Full democracy	10.00	8.57	6.67	8.75	9.71	8.68	▼ 0.13
14	▼ 1	Germany	Full democracy	9.58	8.21	8.33	8.13	9.12	8.67	▼ 0.01
15	—	Uruguay	Full democracy	10.00	8.57	6.67	8.13	9.71	8.61	▲ 0.23
16	▼ 2	United Kingdom	Full democracy	10.00	7.50	8.89	7.50	8.82	8.54	▲ 0.02
17	▲ 4	Chile	Full democracy	9.58	8.21	6.67	8.13	8.82	8.28	▲ 0.20
18	▼ 2	Austria	Full democracy	9.58	7.50	8.33	6.88	8.53	8.16	▼ 0.13
18	▲ 1	Costa Rica	Full democracy	9.58	6.79	7.22	7.50	9.71	8.16	▲ 0.03
20	▼ 2	Mauritius	Full democracy	9.17	7.86	6.11	8.75	8.82	8.14	▼ 0.08
21	▲ 3	Japan	Full democracy	8.75	8.57	6.67	8.13	8.53	8.13	▲ 0.14
22	▼ 6	Spain	Full democracy	9.58	7.14	7.22	8.13	8.53	8.12	▼ 0.17
23	—	South Korea	Full democracy	9.17	8.21	7.22	7.50	7.94	8.01	▲ 0.01
<b>Flawed democracies</b>										
24	▼ 4	France	Flawed democracy	9.58	7.50	7.78	6.88	8.24	7.99	▼ 0.13
25	—	United States	Flawed democracy	9.17	6.79	8.89	6.25	8.53	7.92	▼ 0.04
26	▼ 4	Portugal	Flawed democracy	9.58	7.50	6.11	7.50	8.82	7.90	▼ 0.13



# Conclusion

Chapter 246-272A requires remarkable amendments, which would turn it into a concise and transparent description and definition of best practices and technology of wastewater treatment.

A concise manual of OSS installation and maintenance should be composed and distributed in the pdf format to all property owners.

Restore the right of the property owners to chose the way of installation.

